

DOMINION OF CANADA

ANNUAL REPORT

OF THE

DEPARTMENT OF RAILWAYS AND CANALS

FOR THE FISCAL YEAR FROM APRIL 1, 1909, TO MARCH 31, 1910

*Submitted in accordance with the provisions of the Revised Statutes of Canada, 1906
Chapter 35, Section 33.*

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EXCELLENT MAJESTY

[No. 20—1911.]

1910

To His Excellency the Right Honourable Sir Albert Henry George, Earl Grey, Viscount Howick, Baron Grey of Howick, in the County of Northumberland, in the Peerage of the United Kingdom, and a Baronet; Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, &c., &c., Governor General of Canada.

MAY IT PLEASE YOUR EXCELLENCY,—

The undersigned has the honour to present to Your Excellency the Annual Report of the Department of Railways and Canals, of the Dominion of Canada, for the past fiscal year from April 1, 1909, to March 31, 1910.

GEO. P. GRAHAM,

Minister of Railways and Canals.

CONTENTS.

| Part. | | Page. |
|-------|---|-------|
| | Report of the Deputy Minister..... | VII. |
| | APPENDICES. | |
| I | Statements of Accountant of Department..... | 5 |
| II | Statements of the Departmental Solicitor, including— | |
| | Agreements for the construction of railways..... | 66 |
| | Contracts entered into | 68 |
| | Water power and other public property leased | 72 |
| | Property conveyed..... | 84 |
| | Damages released..... | 92 |
| III | Reports of the Government Railways Managing Board and other officers. | 103 |
| | Report of Government Railways Provident Fund Board..... | 199 |
| IV | Report of the Government Chief Engineer for the Western Division of the National Transcontinental Railway. | 205 |
| V | Report on Hudson Bay Railway Surveys | 211 |
| VI | Report of the Board of Engineers, Quebec Bridge..... | 233 |
| VII | Reports of the Superintending Engineers and Superintendents of Canals. | 237 |
| VIII | Intercolonial Railway, distances on..... | 299 |
| | Windsor Branch Railway, distances on | 300 |
| | Prince Edward Island Railway, distances on..... | 300 |
| | Abstract statements of yearly traffic on the Government Railways..... | 301 |
| | Abstract statements of cost of canal construction and enlargement..... | 313 |
| | Dates of opening and closing canals, season 1909..... | 314 |
| | Comparative statement of canal freight, seasons 1908 and 1909..... | 315 |
| | Diagrams of locks..... | 318 |
| | Canal routes and lock dimensions..... | 321 |
| IX | Railway Subsidies, Acts respecting..... | 335 |

MAPS.

(In separate pocket.)

1. General map of the Dominion.

2. Northern parts of British Columbia and Alberta.

3. Southern parts of British Columbia and Alberta.

4. Manitoba and part of Saskatchewan.

5. Ontario and Manitoba.

6. Ontario and Quebec.
7. Nova Scotia, New Brunswick, Prince Edward Island and part of Quebec.

8. Sault Ste. Marie Canal.

9. Welland Canal.

10. Trent Navigation and Murray Canal.

11. St. Lawrence, Ottawa, Rideau and Richelieu Canals.

REPORT OF THE DEPUTY MINISTER.

To the Honourable Geo. P. GRAHAM,

Minister of Railways and Canals.

SIR,—I have the honour to submit the annual report of the Department of Railways and Canals for the fiscal period of twelve months ended March 31, 1910.

The annual reports of the engineers, together with general and special reports from superintendents, both of railways and canals, and from other officers in the department are given in appendices.

In Part I, will be found statements showing the amounts expended during the past fiscal year in construction, repair and maintenance of the several works under the department; also statements showing total expenditure on each canal since its construction, and on each of the government railways; also a statement showing payments made, year by year, to subsidized railways, with the aggregates of such payments.

On February 5, 1910, Mr. M. J. Butler, C.M.G., who filled the dual office of deputy minister and chief engineer, resigned, and on my appointment, on that date, to the position of deputy minister, the department reverted to the principle of having a special officer as chief engineer, and this office was filled by the appointment, on April 22, 1910, of Mr. W. A. Bowden, who had been acting in that capacity for some time previous.

Another change of importance was the constitution, under an order in council dated April 20, 1909, of a 'Government Railways Managing Board' with whom now rests the duty of carrying out the various details attaching to the operation of these roads.

GENERAL SUMMARY.

During the twelve months of the past fiscal year the expenditures made by or through the department on its several works of operation, maintenance and construction, both railway and canal, and in furtherance by subsidy, under specific votes granted by parliament, of railway enterprises in various parts of Canada other than the government roads, aggregate as follows:—

The total railway expenditure amounted to \$32,862,094.46, of which \$21,505,975.91 was charged to capital, \$2,260,214.59 to income and \$9,095,903.96 to revenue.

The railway expenditure on capital account included \$19,968,126.86 for the eastern division (from Moncton to Winnipeg), of the National Transcontinental railway, which is in course of construction by a board of commissioners, and \$53,042.63 for surveys for a line of railway to Hudson bay.

The railway expenditure on income included a total of \$2,048,097.05 paid as subsidies to railways other than the government roads, \$112,465.04 for the Board of Railway Commissioners for Canada, \$17,644.66 for inspection of the Grand Trunk Pacific Railway, and \$111,788.02 for preparing plans, &c., for the reconstruction of the bridge across the River St. Lawrence above Quebec—known as the Quebec bridge.

1 GEORGE V., A. 1911

The expenditure on the Intercolonial railway amounted to \$9,923,479.78, namely, on capital account \$1,278,409.45, and on revenue account \$8,645,070.33. On the maintenance of the Windsor branch the expenditure was \$23,549.90, charged to revenue account.

On the Prince Edward Island railway, the total expenditure was \$633,680.70, of which \$206,396.97 was charged to capital and \$427,283.73 to revenue.

The expenditure on canals aggregated \$3,259,097.18; of which \$1,650,706.64 was on capital account, \$489,256.68 on income, \$604,899.26 for staff and \$514,234.60 for repairs, the last two amounts being charged to revenue.

Adding to the above for miscellaneous expenditures in both branches the sum of \$4,706.79, the total expenditure for the year on railways and canals amounted to \$36,125,898.43.

The total revenue derived from the railway and canal works was \$9,841,347.99, of which the railway produced \$9,647,963.71, and the canals \$193,384.28,* the sum of \$168,893.63 being received from hydraulic rents.

The total government expenditure on railways prior to and since Confederation (July 1, 1867) up to March 31, 1910, amounts, on capital account, to \$236,654,665.29, including the sum of \$25,000,000 granted to the Canadian Pacific Railway Company for its main line, and also the amount \$660,683.09 expended on the Annapolis and Digby railway. In addition, there has been expended from the consolidated fund a total of \$202,532,757.03, making a total of \$439,187,422.32. Of this amount the sum of \$13,881,460.65 was expended, prior to Confederation, on the construction of portions of what is now the Intercolonial railway system.

The government expenditure on canals prior to and since July 1, 1867, to the close of the fiscal year March 31, 1910, amounts, on capital account, to \$96,982,449.37, of which \$20,593,866.13 was expended prior to Confederation, and from the consolidated fund to \$29,346,507.21, making a total of \$126,328,956.58.

The total expenditure on railways and canals up to March 31, 1910, is, as above, \$565,516,378.90; adding to which, for general expenditures embracing both, the further sum of \$810,358.32, the grand total expenditure amounts to \$566,326,737.22.†

Details indicating the general classes and directions of the above expenditures will be found in the statements furnished by the accountant of the department and printed in the appendices hereto, Part I.

GOVERNMENT RAILWAYS IN OPERATION.

The government railways are the Intercolonial, the Windsor branch (maintained only, and leased for operation), and the Prince Edward Island railway.

Details respecting these railways and their operation will be found in the appen-

* Under the authority of an order in council, dated June 22, 1905, the system of charging tolls for the passage of vessels and goods was abolished on all the canals of the Dominion. Records, however, are kept for statistical purposes, and the compilation of the resultant figures is given in a separate report issued by the department.

† This amount does not include the annual payment of \$119,700 to the provincial government of Quebec, being interest at the rate of 5 per cent on the sum of \$2,394,000 up to 1905, granted by 47 Victoria, Ch. 8 (1884), nor the annual payment of \$107,730, being interest at the rate of 4½ per cent since and including 1905, on the said sum of \$2,394,000, for the line between Ottawa and Quebec, which sum was transferred to the public debt as a liability, and is dealt with by the Finance Department. (See Public Accounts 1893-4, page 10, and 1906, page 79.)

SESSIONAL PAPER No. 20

dices, Part III., containing reports from the Government Railways Managing Board, and the officials of these roads.

The gross earnings of the government roads for the twelve months ended March 31, 1910, amounted to \$9,647,963.71; the working expenses amounted to \$9,095,903.96, showing a profit of \$552,059.75.

The Intercolonial railway working expenses amounted to \$8,645,070.33; its earnings amounted to \$9,268,234.99; a profit of \$623,164.66.

The Windsor branch maintenance expenditure amounted to \$23,549.90; the government earnings amounted to \$60,653.98, leaving a profit of \$37,104.08.

The Prince Edward Island railway working expenses amounted to \$427,283.73; its earnings amounted to \$319,074.74, the deficit being \$108,208.99.

INTERCOLONIAL RAILWAY.

On March 1, 1898, the operations of the Intercolonial were extended to Montreal by means of leases obtained from the Grand Trunk and Drummond County Railway Companies, making an addition of 169.81 miles to the operation of the government line.

The leasing agreement with the Grand Trunk Railway Company, dated February 1, 1898, was confirmed by the Act 62-63 Vic., chap. 5 (1899). Its term extends for a period of ninety-nine years from March 1, 1898; the annual rental being fixed at \$140,000.

Under authority of the Act 62-63 Vic., chap. 6 (1899) the Drummond County railway from Chaudière to Ste. Rosalie, together with the branch from St. Leonard to Nicolet, was acquired by the Dominion; conveyance being made by a deed dated November 7, 1899.

On October 1, 1904, the Canada Eastern railway from Gibson to Loggieville, 123.67 miles, was purchased, and on April 19, 1905, the mortgaged Fredericton and St. Mary's bridge, with connected property, 1.33 mile, was surrendered to the government.

The total mileage in operation during the year remained the same as in the preceding year, 1,447.13 miles. 23.13 miles are double-tracked. This is irrespective of spur lines and sidings and tracks in yards, the aggregate length of which was 383.71 miles.

CAPITAL ACCOUNT.

The expenditure for the past fiscal year ended March 31, 1910, on capital account amounted to \$1,278,467.60; from which is deducted the sum of \$58.15 (comprising a refund, &c.), leaving the total \$1,278,409.45, making the total expenditure on the whole road as amalgamated under the Acts 54-55, Vic. chap. 50 (1891) and 62-63 Vic. chaps. 5 and 6 (1899), together with the acquired Canada Eastern railway, \$92,273,073.51.

The principal items charged to capital during the year were as follows (omitting cents): for the new locomotive and car shops with equipment, and new freight yard at Moncton, \$399,400; new machinery for shops, \$95,799; increased accommodation at Halifax, \$179,953; engine house, machine shops, &c., at Rivière du Loup, \$156,945; extension to wharf at Dalhousie, \$27,500; double tracking parts of line, \$68,977; increased water supply, \$42,482, and increased facilities at various points, \$100,565.

1 GEORGE V., A. 1911

The expenditure on capital account was \$2,588,822.71 less than in the previous year 1908-9, in which year \$1,353,646 was expended for rolling stock, whereas last year there was no capital expenditure under this head.

REVENUE ACCOUNT.

Expenditures on revenue account are grouped under five main heads, each divided into a number of sub-heads.

The main heads and the expenditures under them for the fiscal year ended March 31, 1910, are as follows: maintenance of way and structures (27 sub-heads), \$1,629,254.81, against which is a credit of \$6,975.06 for maintenance of joint tracks, yards, &c., leaving the net amount \$1,622,279.75; maintenance of equipment (21 sub-heads), \$1,851,792.68; traffic expenses (5 sub-heads), \$179,882.61; transportation expenses (40 sub-heads), \$4,870,874.65, against which is a credit of \$86,206.89 for operating joint yards and terminals, making the net expenditure under this head, \$4,784,667.76; general expenses (8 sub-heads), \$206,447.53.

The aggregate expenditure under these five heads for the year was \$8,645,070.33.

The items of cost of 'maintenance of way and structures' include (omitting cents): ties, \$226,214; rails, \$222,626; other track material, \$128,667; roadway and track, \$533,502; removal of snow, ice and sand, \$91,124; bridges, trestles and culverts, \$66,082; grade crossings, fences, cattle-guards and signs, \$37,516; buildings, fixtures and grounds, \$140,304; and maintaining joint tracks, yards and other facilities, \$44,161 (against which last item is a credit, as above).

The items of 'maintenance of equipment' include (omitting cents): repairs and renewals of locomotives, \$759,381; repairs and renewals of passenger cars, \$338,494, and of freight cars, \$583,914; and shop machinery and tools, \$33,297.

The items of 'traffic expenses' include (omitting cents): for outside agencies, \$61,587; for advertising, \$37,232; and for stationery and printing, \$24,810.

The items of 'transportation expenses' include (omitting cents): despatching trains, \$142,103; station employees, \$626,729; station supplies and expenses, \$86,785; yard masters and clerks, \$33,544; yard conductors and brakemen, \$121,899; yard enginemen, \$112,975; fuel for yard locomotives, \$152,678; operating joint yards and terminals, \$104,241 (against which is a credit of \$86,206); road enginemen, \$482,068; engine house expenses, \$234,189; fuel for road locomotives, \$1,490,049; road trainmen, \$629,430; train supplies and expenses, \$177,702; and operating floating equipment, \$42,321.

The items of 'general expenses' include (omitting cents): pensions, \$63,313; and law expenses, \$7,307.

The gross earnings of the year, \$9,268,234.99, were derived as follows:—

The passenger earnings amounted to \$2,765,884.66, or 29.84 per cent of the gross earnings; the freight earnings were \$6,048,884.18, or 65.26 per cent of the gross; the mail and express earnings were \$408,847.66 or 4.41 per cent and the miscellaneous earnings amounted to \$44,618.49, or .48 per cent of the gross. The revenue derived from transportation was 99.32 per cent of the gross.

The gross earnings per mile of railway (1,447.13 miles), were \$6,404.56; per engine mile, \$1.08; per train mile, \$1.39; and per car mile, 9.82 cents.

SESSIONAL PAPER No. 20

The total engine mileage was 8,608,486; the total train mileage 6,682,353; and the total car mileage, 94,384,628.

The expenses per mile of railway were as follows: maintenance of way and structures, \$1,121.03; maintenance of equipment, \$1,279.63; traffic expenses, \$124.30; transportation expenses, \$3,306.32; and general expenses, \$142.66, making a total of \$5,973.94.

The expenses per train mile were: maintenance of way and structures, 24.28 cents; maintenance of equipment, 27.71 cents; traffic expenses, 2.69 cents; transportation expenses, 71.60 cents; and general expenses, 3.09 cents, making a total of 129.37 cents.

The ratio of expenses to gross earnings was as follows: maintenance of way and structures, 17.50 per cent; maintenance of equipment, 19.98 per cent; traffic expenses, 1.94 per cent; transportation expenses, 51.62 per cent; and general expenses 2.23 per cent.

Comparing the twelve months ended March 31, 1909, with the corresponding period ended on March 31, 1910, the revenue last year showed an increase of \$741,165.53. The passenger traffic produced an increase of \$137,666.09; the freight traffic an increase of \$546,333.60; and the mails and express an increase of \$57,165.84. The increase per mile of railway was \$512.16, and per train mile 15 cents.

A comparison of working expenses for the same periods shows a decrease in the year 1909-10, of \$682,951.22, or per mile of railway, \$471.95; per engine mile of 0.87 cents, and per train mile of 6 cents.

The increased revenue, \$741,165.53, and the reduction in working expenses, \$682,951.22, make a total betterment, as compared with the previous year, of \$1,424,116.75.

GENERAL NOTES RE INTERCOLONIAL RAILWAY.

The number of passengers carried was 3,122,324, an increase compared with the previous year, of 215,087. There was an increase of 217,330 in the number of local passengers, and a decrease of 2,243 in the number of through passengers.

The actual quantity of freight carried, including non-revenue producing, was 4,071,692 tons. Of this, 144,452 tons consisted of supplies carried for the railway, such as ties, rails, station supplies, &c.

Of revenue producing freight, 3,927,240 tons were carried, an increase, compared with the previous year, of 353,268 tons. The local freight was increased by 216,183 tons, and the through freight by 137,080 tons; the principal items being the following:

Of agricultural products, 473,851 tons, including 155,484 tons of grain and 160,817 tons of flour; of animals, poultry and fish and their products, 76,732 tons, including 18,439 tons of dressed meats, 27,887 tons of fish and 6,667 tons of hides and leather; of products of mines, 1,266,572 tons, including 1,050,362 tons of coal and coke and 184,673 tons of stone, sand, &c.; of products of the forest 1,043,749 tons, including 416,774 tons of lumber, 185,385 tons of pulp wood, and 39,072 tons of wood pulp; of manufactured goods 708,373 tons, including 88,484 tons of iron and steel rails, 138,468 tons of pig and bloom iron, brick, lime and cement, 107,199 tons, sugar, 62,571 tons, and petroleum and oils, 27,537 tons. Of goods classed as miscellaneous, 357,963 tons were carried.

Of products of agriculture, there was an increase of 106,348 tons, including increases of 51,588 tons in grains, 14,125 tons in flour, and 36,208 in hay. Of products

1 GEORGE V., A. 1911

of animals, the increase was 5,176 tons, chiefly in dressed meats and fish. Of products of mines, there was a decrease of 32,760 tons, coal and coke having decreased by 65,575 tons, and slate and granite by 1,732 tons, though other items showed increase. Of products of the forest, there was an increase of 164,702 tons, lumber having increased by 63,886 tons, and both pulp wood and wood pulp having shown considerable increase. Of manufactures, there was an increase of 79,208 tons, iron, pig and bloom, increased by 39,624 tons, wire rods by 35,365 tons, and other increases were made. Iron and steel rails fell off 12,856 tons, and steel billets 26,174 tons.

The total rolling stock equipment of the railway on March 31, 1910, was as follows:

Locomotives, 414; cars of all kinds, 12,970, comprising sleeping cars, 1st class, 41, 2nd class, 50, parlour cars 9, dining cars 12, 1st class passenger cars 135, 2nd class 99, postal cars 34, baggage cars 65, box baggage cars 6, air brake instruction car 1, steam motor cars 4, box cars, 7,095, refrigerator cars 144, platform cars 3,058, pulp wood cars 52, oil tank cars 40, hopper cars 1,046, gondola coal cars 17, coal cars (20 tons capacity) 442, steel side dump coal cars 130, stock cars 148, convertible dump cars 200, auxiliary cars 23, vans 119; also 53 common snow ploughs, 20 wing ploughs, 2 rotary steam ploughs, 2 double track ploughs, 1 double end plough, 40 flangers; making a total of 118 ploughs and flangers; 2 ballast plough cars, and 1 well boring car.

Out of the foregoing list 11 locomotives, 645 cars of various kinds, and 1 common snow plough were condemned or destroyed and 11 locomotives, 445 cars, and 1 common snow plough were listed as to be replaced at the close of the year.

The following comparative statistics dealing with traffic will be of interest:—

In 1908-9, the average tons of freight carried per train, producing revenue, was 229.95, and the number of passengers 51.61; in 1909-10, the average freight tonnage was 260.02, and passengers 58.99.

In 1908-9, the average tons per loaded car, producing revenue, was 16.66, and the number of passengers 8.81; in 1909-10, the number of tons was 17.23, and of passengers, 9.62.

The number of tons per train, all freight, in 1908-9, was 235.46, and in 1909-10, 264.26.

The number of tons per car, all freight, in 1908-9, was 17.07, and in 1909-10, 17.51.

The average distance each ton of freight was carried in 1908-9, was 267.59 miles, and in 1909-10, the average distance was 271.69 miles. The average distances passengers were carried in those years were 48.04 miles, and 48.73 miles respectively.

The average number of loaded cars per train in 1908-9, was 13.80 cars of freight and 5.86 cars of passengers; in 1909-10, the number of freight cars per train was 15.09 and of passengers 6.13.

The average number of empty cars per train in 1908-9, was 3.93; and in 1909-10, 3.13.

In 1908-9, the average of train miles per mile of road was, for freight, 2,873.96; and for passengers, 1,870.06; in 1909-10, these figures were, respectively, 2,835.59, and 1,782.07.

In 1908-9, the average per mile of road of revenue producing freight carried one mile was 660,857.05 tons, and passengers 96,519.39; in 1909-10, the figures were, freight 737,317.14 tons, and passengers 105,131.40.

SESSIONAL PAPER No. 20

The number of tons, all freight, per mile of road carried one mile in 1908-9, was 676,705.26, and in 1909-10, 749,338.04.

The train mileage in 1908-9 was: passenger, 2,706,214 miles; freight, 4,158,990 miles; in 1909-10, passenger, 2,578,885 miles; freight, 4,103,468 miles.

The loaded car mileage in 1908-9, was 57,381,108 miles, and in 1909-10, 61,916,687 miles.

The empty car mileage in 1908-9, was 16,356,184 miles, and in 1909-10, 12,843,789 miles.

The caboose car mileage in 1908-9, was 3,776,649 miles, and in 1909-10, 3,802,680 miles.

The steam motor car mileage (passenger) was 21,997 miles in 1908-9, and 16,563 miles in 1909-10.

The total car mileage in 1908-9 was: passenger, 15,860,178 miles, and freight, 77,513,941 miles; in 1909-10, the figures were: passenger, 15,821,472, and freight 78,563,156.

The total freight moved in 1908-9, was 3,751,724 tons; of this quantity, 3,573,972 tons were revenue-producing. In 1909-10, the total freight moved was 4,071,692 tons, of which 3,927,240 tons were revenue-producing.

Repairs to passenger cars cost, per car, in 1908-9, \$630.51, or per car mile, .0172 of a cent; and in 1909-10, \$604.87, or per car mile, .0171 of a cent.

Repairs to freight cars cost, per car, in 1908-9, \$47.86, or per car mile, .0078 of a cent; and in 1909-10, \$38.16, or per car mile, .0062 of a cent.

Repairs to locomotives cost, per locomotive, in 1908-9, \$1,884.53, or per locomotive mile, .0828 of a cent, and in 1909-10, \$1,504.72, or per locomotive mile, .0727 of a cent.

The value of stores on hand at the close of the year was \$1,243,181.69, comprising fuel, \$416,911.37; roadway and bridge material, \$314,377.42; and miscellaneous, \$511,892.90.

During the year the new shops at Moncton were occupied, and the locomotive repair work formerly executed at Halifax was transferred to the Moncton shops, a considerable reduction in the number of employees being thus effected.

The double tracking between Moncton and Painsec Junction, a distance of 7.2 miles, was completed and put in operation.

The general condition of the rolling stock is good, and the track of the railway, together with its bridges and other structures, has been maintained in good repair. It is believed that the whole road was never in better condition than at the present time.

Full details as to the various works of improvement and repair carried out during the year, and as to the mechanical department and the rolling stock, will be found in the appendices hereto; also the several statements of the comptroller in regard of the expenditures, &c.

WINDSOR BRANCH.

The road is 32 miles in length. It extends from Windsor Junction, on the Inter-colonial railway, to Windsor.

The railway is operated by the Dominion Atlantic Railway Company, formerly the Windsor and Annapolis Railway Company. The company pay all charges in con-

1 GEORGE V., A. 1911

nection with the working of the traffic, two-thirds of the gross earnings being allowed them, the government taking the remaining one-third, and assuming all cost of maintenance of the road and works. This arrangement is carried out under an agreement dated December 13, 1892, which extends for a further term of twenty-one years, arrangements similar to those made in 1871.

All charges for superintendence and supervision of maintenance of work are borne by the government; the duty of supervision is performed by the chief officers of the Intercolonial railway.

The gross government receipts for the twelve months of the fiscal year ended on March 31, 1910, amounted to \$60,653.98. The cost of maintenance aggregated \$23,549.90, leaving a profit of \$37,104.08. The government share of the receipts showed an increase of \$4,622.65 compared with the previous year.

PRINCE EDWARD ISLAND RAILWAY.

This is a narrow gauge railway, 3 feet 6 inches. The length of road operated was the same as in the previous year, 267.5 miles.

CAPITAL ACCOUNT.

There was an addition of \$206,396.97 to the capital account expenditure during the past year ended March 31, 1910, making the total capital expenditure up to that date, \$8,465,364.91. The added expenditure included \$156,531.57 for increased accommodation at Charlottetown, where a new twenty stall brick and concrete engine house has been built, and \$49,829.25 for the branch line from Harmony to Elmira, a distance of 9.9 miles, the construction of which was placed under contract during the year.

REVENUE ACCOUNT.

The gross earnings of the year amounted to \$219,074.74, and the working expenses to \$427,283.73, making an excess of expenditure over earnings of \$108,208.99. Compared with the previous year there was an increase of \$7,755.11 in the gross earnings, and an increase of \$16,953.32 in the working expenses.

The expenditure on revenue account (working expenses) is classified, as on the Intercolonial railway, under five heads, with their several sub-heads. It comprised: 'Maintenance of way and structures,' (25 sub-heads), \$121,046.70, which included ties \$10,232.32; rails, \$11,008.03; roadway and track, \$60,149.62; removal of snow, ice and sand, \$11,939.76; and telegraph and telephone lines, \$6,916.88; 'maintenance of equipment' (10 sub-heads), \$79,258.26, which included repairs to locomotives, \$27,005, to passenger cars, \$14,485.79, and to freight cars, \$11,471.06; 'traffic expenses' (3 sub-heads), \$968.97, of which \$894.09 was for advertising; 'transportation expenses' (30 sub-heads), \$211,004.76, which included, station employees, \$45,038.14; road engineers, \$23,425.86; road engine house expenses, \$10,837.48; fuel for road engines, \$46,482.45; road trainmen, \$31,955.39; train supplies and expenses, \$7,071.15; and telegraph and telephone operation, \$7,013.08; 'general expenses' (6 sub-heads), \$15,005.04, which included the salaries and expenses of general officers, clerks and attendants, and relief department expenses, \$6,142.67.

SESSIONAL PAPER No. 20

The number of passengers carried was 351,038, an increase compared with the previous year of 18,280, producing \$140,076.83, an increase of \$3,542.79. Of freight, 105,741 tons were carried, a decrease of 349 tons, producing \$153,373.11, an increase of \$4,222.50. The earnings for mails and sundries amounted to \$25,624.80, a decrease of \$10.18 compared with the previous year.

The freight carried was agricultural products, 29,767 tons, including grain, 12,918 tons; flour, 4,374 tons; hay, 2,912 tons; fruit and vegetables, 7,886 tons, and tobacco, 166 tons; animals, poultry and fish and their products, 12,064 tons, including live stock, 3,562 tons; dressed meats, 2,307 tons; poultry, game and fish, 3,030 tons, and hides and leather, 421 tons; products of mines, 10,795 tons, including 7,523 tons of bituminous coal; forest products (lumber) 13,358 tons; manufactures, 6,593 tons, including iron and steel rails, 598 tons, pig and bloom iron, 439 tons; agricultural implements, 711 tons; cement, brick and lime, 1,334 tons, and sugar, 907 tons; miscellaneous commodities, 33,164 tons.

The engine mileage aggregated 444,837 miles, the train mileage, 323,522 miles, and the car mileage, 2,051,034 miles.

The gross earnings per mile of railway amounted to \$1,195.03; per engine mile, \$71.73 cents; per train mile, 98.63 cents; and per car mile to 15.56 cents.

The working expenses per mile of railway amounted to \$1,600.31, and per train mile to 132.07 cents.

The value of stores on hand on March 31, 1910, was \$59,306.18, including fuel, \$12,155.77.

The total rolling stock equipment of the railway on March 31, 1910, was as follows: Locomotives, 31; passenger cars, first-class, 23, second-class, 12; combined second-class and baggage, 7; postal and smoking, 4; combined postal and baggage, 4; baggage, 6; pay car, 1; vans, 4; box freight, 313; refrigerator, 3; stock, 21; coal, 22; platform, 147; total, 567. In addition, there were 10 snow ploughs and 9 flangers.

In the Charlottetown shops, which the mechanical superintendent states are modern and up to date; the machinery has all been installed. One first-class passenger car and ten platform cars were rebuilt, ten locomotives received heavy repairs, and considerable quantity of work was done; the rolling stock being maintained in a high state of efficiency.

GOVERNMENT RAILWAYS PROVIDENT FUND.

The Act of 1907, chap. 22, establishing a fund to be known as 'The Intercolonial and Prince Edward Island Railway Employees' Provident Fund' came into effect on April 1, 1907. The main feature is that a contribution of 1½ per cent of each month's salary and wages will be made by each employee to the fund, to which a like amount will be added by the railway. Interest at 3 per cent per annum will be allowed on the employee's contribution. On retirement, after a certain length of service, the employee will receive for the rest of his life a monthly allowance for each year of his service, equal to 1½ per cent of his average monthly salary or wages for the preceding eight years; the minimum allowance to be \$20 a month, and the maximum ⅓ of his said average monthly pay. The fund is administered by a board of five persons, three of whom are officers of the railway; the remaining two being elected annually by the

1 GEORGE V., A. 1911

contributing employees. By the amending Act of 1909, chap. 20, the government Railways Managing Board nominates one of its members as chairman of the Provident Board.

The third annual report of the Board, which is printed in the appendices hereto, shows that at the beginning of the fiscal year April 1, 1909, there was a balance to the credit of the fund of \$225,898.31, and that during the past fiscal year the contributions of the railway employees amounted to \$69,949.70; adding to this a like contribution from the government railways and the sum of \$483.06 for refunds, &c., together with interest on monthly balances, \$6,314.32, the total of the fund for the year aggregated, \$372,595.09. The total expenditure during the year was \$117,010.01, of which \$103,628.20 was paid out in retiring allowances, leaving at the credit of the fund on March 31, 1910, the sum of \$255,585.08. It should again be observed that the expenditure, in the early years of the operation of the scheme, would naturally be less than the receipts; but this condition cannot be expected to continue indefinitely. However, meantime, a considerable increase of the fund at credit, year by year, will serve as a source from which to meet the larger expenditures to be looked for in the future.

In the course of the year, 168 employees were retired and pensioned; and seventeen died.

During the three years that the system has been in operation the total contributions by employees amount to \$227,963.85, and the total contributions by the railways to \$227,963.85. The number of employees pensioned is 398, and forty-five have died, leaving 353 in enjoyment of their allowances at the close of the fiscal year 1910. The total paid for retiring allowances is \$191,608.87.

SURVEYS FOR A RAILWAY TO HUDSON BAY.

These surveys have been conducted from Le Pas Mission, a point on the River Saskatchewan, up to which point there is at present in operation a railway, part of the Canadian Northern railway system.

In last year's report there was printed a progress report made by Mr. John Armstrong, the chief engineer of the survey, dated February 15, 1909. This report, which was based on partial surveys, dealt with the two feasible routes discovered, one at Fort Churchill, on the River Churchill, and the other to Port Nelson, on the River Nelson.

Under date September 8, 1909, Mr. Armstrong has submitted a general report on the preliminary surveys, which now include preliminary surveys of the harbours at the mouth of the Nelson and Churchill rivers. His report is furnished with maps showing the two routes, with profiles, and charts with the soundings taken at Port Nelson. His report was laid before parliament last session and will be found printed in the appendices hereto.

From this report, the following information is summarized:—

The distance from Le Pas to Fort Churchill would be approximately 477 miles; its cost with 60-pound rails, \$10,586,520, or with 80-pound rails, \$11,351,520; adding to which the sum of \$7,757,152 for buildings, shops, grain elevators, &c., and for harbour works, \$6,675,000, the total is set down at \$19,108,672.

SESSIONAL PAPER No. 20

The distance from Le Pas to Port Nelson would be approximately 410 miles; its cost with 60-pound rails, \$8,333,800, or with 80-pound rails, \$8,981,800; adding to which, for buildings, shops, grain elevators, &c., the sum of \$7,444,540, and for harbour works, \$5,065,000, the total cost is set down at \$16,426,340.

In both cases, the sum of \$4,000,000 is given as representing the cost of two 4,000,000 bushel fireproof elevators to be erected at either terminal.

The grades obtained are, on the Churchill route, $\frac{4}{10}$ of 1 per cent for the north bound and $\frac{6}{10}$ for the south bound traffic. On the Nelson route the grade is $\frac{4}{10}$ both ways.

On the Churchill route the estimate provides for steel bridge structures over the River Saskatchewan and the Deer river, timber to be used for all other waterways.

On the Nelson route the bridge over the River Saskatchewan and the two crossings of the Nelson river are proposed to be of steel and concrete; all others to be of wood.

For about the first 150 miles from Le Pas the route is common to both lines of survey, and, of this, the first 120 miles runs through a comparatively level country, giving easy grades and cheap construction. This character is maintained generally on the whole of the Nelson route, the greater portion of the grading being in clay loam, a certain percentage of sand gravel and swamps. The profile shows a practically straight line of descent to the bay, varied only by stretches of level grade.

The Churchill route is at a higher elevation, and passes through a granite country. It involves a number of rising and falling grades between the 250th mile and the bay, and requires much curvature to secure the grade adopted, at reasonable cost.

The question of harbour facilities at the two points is one that constitutes a very important factor in the determination of the route to be adopted, and although a large amount of information has been obtained, as is indicated by the charts with their marked soundings, and Mr. Armstrong's statements as to tides, currents, ice conditions, anchorage, sites for railway terminals, &c., it is considered that further details should be gathered.

By the close of the fiscal year, March 31, 1910, location plans and profiles of the proposed line for a distance of about seventy-five miles from Le Pas were prepared, and further location work was in progress.

BOARD OF RAILWAY COMMISSIONERS FOR CANADA.

By the Act 3 Edward VII., chap. 58 (1903), amending and consolidating the law respecting railways, the Railway Committee of the Privy Council was abolished, and in lieu thereof a Board of Commissioners, under the above title, was created, to consist of three members (increased to six by the Act of 1908, chap. 62), to be appointed by the Governor in Council; this Act was brought into force on February 1, 1904, by proclamation, on the authority of an order in council, dated January 18, 1904, which also appointed certain persons as commissioners. By the Act of 1908, chap. 61, the jurisdiction of the board was extended to cover the operation of telegraph and telephone lines, and by the Act of 1908, chap. 62, certain amendments were made to its constitution and otherwise. The office of the board is at Ottawa, though it is authorized to hold sessions in any part of Canada. Its decisions and orders are final, subject

1 GEORGE V., A. 1911

to appeal to the Supreme Court upon questions of jurisdiction or law, and also to action thereon by the Governor in Council, in his discretion.

It is required to make, annually, a report of its proceedings, which report is laid before parliament. The report for the year ended March 31, 1910, has been received, and will be laid before parliament in due course.

NATIONAL TRANSCONTINENTAL RAILWAY.

Under an agreement, dated July 29, 1903, ratified by the Dominion Act of that year, chap. 71, and under a modifying agreement dated February 18, 1904, ratified by the Act of that year, chap. 24, the Grand Trunk Pacific Railway Company, a company incorporated by the Act of 1903, chap. 122, have undertaken certain obligations in respect of a line of railway, wholly upon Canadian territory, between the city of Moncton, in the province of New Brunswick, and the navigable waters of the Pacific ocean, at or near Port Simpson or some other port in British Columbia, as may be agreed upon. The railway is composed of two divisions, namely, the eastern division, between Moncton and Quebec, thence westerly through the northern part of the provinces of Quebec and Ontario, and in the province of Manitoba to the city of Winnipeg, and the western division, between Winnipeg and the Pacific ocean. The eastern division is being constructed by the government under four commissioners appointed by the Governor in Council, and on completion is to be leased to and maintained and operated by the company, who undertake to construct at their own cost and to maintain and operate the western division. The lease of the eastern division is to be for a period of fifty years, at a rental of three per cent per annum upon the cost of its construction; the first seven years of the term to be free of rent; both divisions are to be equipped by the company, the first equipment to be of a value not less than \$20,000,000.

By way of assistance to the company in the construction of the western division, it is provided that the government shall guarantee payment of the principal and interest of an issue of bonds to be made by the company for an amount sufficient to produce a sum equal to 75 per cent of the cost of its construction, such amount not to exceed \$13,000 per mile in respect of the prairie section from Winnipeg to the eastern limit of the Rocky Mountains (such limit to be established by the chief engineer of the company and the chief engineer of the government, as the result of actual surveys to be made).

The several government expenditures to be made under these Acts and agreements are to be so made from appropriations by parliament for the purpose, and on the recommendation of the Minister of Railways and Canals, to whom accounts of all receipts, expenditures and liabilities are to be furnished monthly. The board are required to furnish annually a report to the Governor in Council, through the Minister of Railways and Canals, showing the receipts and expenditures of the year, and other information as to the railway, which report is to be submitted to parliament.

The headquarters of the Board are in the city of Ottawa.

The report of the Board for the fiscal period of twelve months ended March 31, 1910, has been prepared, and will be laid before parliament in due course.

The following summary shows the position at the close of the year, March 31, 1910.

SESSIONAL PAPER No. 20

The entire line from Moncton to Winnipeg is under contract, the distance being 1804.84 miles.

Of this distance, 1,106 miles are graded. The track is laid for a distance of 698.7 miles of main line, with 114.5 miles of sidings; total 813.2 miles. The work is comprised in twenty-one contracts, and the total percentage done is 60.1 per cent of the whole.

The work is divided into six districts. On the first westward from Moncton, *District 'A,' 256.51 miles;* 246 miles are graded, and the main track is laid for 155.91 miles. The expenditure for construction during the year was \$4,996,543.26. 81.07 per cent of the work has been done.

District 'B,' 507.22 miles; 358.25 miles are graded, and the main track is laid for 216.4 miles. This district extends east and west of the Quebec bridge. The expenditure during the year on construction was \$5,313,240.10, and on transport, \$14,169.14. 64.87 per cent of the work has been done.

District 'C,' 192.91 miles; 13 miles have been graded. The expenditure during the year on construction was \$360,264.18; on transport, \$26,691.28, and on location, \$6,948.04. 5.31 per cent of the work has been done.

District 'D,' 216.11 miles; 127.5 miles have been graded, and 57.9 miles of main track laid. The expenditure during the year on construction was \$3,479,414.94, and on transport, \$27,286.12. 36.89 per cent of the work has been done.

District 'E,' 255.19 miles; 41.5 miles have been graded. The expenditure on construction during the year was \$857,325.09, and on transport, \$10,249.70; 20.58 per cent of the work has been done.

District 'F,' 376.80 miles; brings the road into the city of Winnipeg, crossing the Red river at St. Boniface. It embraces the construction of the yards and locomotive and other shops at a point about six miles east of Winnipeg. The track connecting the Lake Superior branch with the Dundee branch of the Canadian Northern railway at St. Boniface, was laid in October, 1909, and 46.7 per cent of the work of constructing the station buildings, &c., over this distance is completed. The substructure of a double track bridge over the Red river at Winnipeg is under contract, and six of the piers have been completed. The foundations of all the terminal shop buildings are completed, and about 2,500 tons of the general steel work have been erected. The expenditure during the year on construction was \$4,648,295.23, and on transport, \$11,982.58; 82.21 per cent of the work has been done.

The expenditure for the fiscal year up to March 31, 1910, on the entire eastern division amounted to \$19,968,126.86, of which \$19,655,682.80 was on construction. The total expenditure up to that date was \$71,918,843.88.

The yearly expenditures have been as follows:—

| | |
|--------------------------------|---------------|
| 1904-5.. | \$ 778,363 63 |
| 1905-6.. | 1,831,263 50 |
| 1906-7 (nine months).. | 5,537,867 50 |
| 1907-8.. | 18,910,449 41 |
| 1908-9.. | 24,892,772 98 |
| 1909-10.. | 19,968,126 86 |

1 GEORGE V., A. 1911

As the result of disputes between the government engineers and those of the Grand Trunk Pacific Railway Company respecting classification of material on districts 'B' and 'F,' and as to returns for rock moved outside the regular section in rockcuts, (commonly known as 'overbreak'), these matters have been referred for settlement to a board of three arbitrators, as provided for in the company's agreement with the government. Owing to snow on the ground, it was not found possible to deal with the question of classification before the close of the fiscal year. A number of adjustments of 'overbreak' were, however, made, and where they involved deductions these have been made in the contractors' progress estimates. In some cases remeasurements will be necessary before they can be dealt with.

On the western division of the railway, in course of construction by the Grand Trunk Pacific Railway Company, the position at the close of the fiscal year, March 31, 1910, is shown by the report made by the government chief engineer of that division, Mr. Collingwood Schreiber, C.M.G., to be as follows:—

The total length of this division is about 1,751 miles, divided into two sections, viz.: the 'Prairie Section' which extends from the west bank of the Assiniboine river, in the city of Winnipeg, to the east bank of Wolf creek, a distance of 915 miles, and the 'Mountain Section' extending from the east bank of Wolf creek to the western end of the city of Prince Rupert, the Pacific coast terminus, a distance of about 836 miles.

' PRAIRIE SECTION.'

The entire section is graded, and the structures are built. The main line track is laid, and sidings have been constructed at 138 stations, aggregating 140½ miles in length. 474 miles of main line are fully ballasted; 350 miles have a first lift of ballast of about five inches in depth, and there remain thirty-five miles of skeleton track between Entwistle and Wolf creek.

Seven hundred and thirty-two miles of double fence have been erected.

A telegraph line has been built over the entire 'Prairie Section' of 915 miles, of which 793 miles is a four wire line, and 122 miles a two wire line.

Eleven interlocking plants have been established at rail level crossing of other railways.

Water services have been introduced at forty-nine stations.

Six round houses have been built, viz.:—At Rivers, 18 stalls; Melville, 12 stalls; Watrous, 12 stalls; Biggar, 12 stalls; Wainwright, 12 stalls; Edmonton, 18 stalls; and two small engine houses have also been erected—one of two stalls at Portage la Prairie and one of two stalls at South Saskatoon.

Machine shops have been erected at Rivers, Melville, and Edmonton, three divisional stations.

Five divisional station houses; 26 way station houses; 54 section houses; 66 tool houses; 79 bunk houses; 5 coaling plants; 80 permanent and 22 temporary loading platforms; and 18 stock yards; 115 grain elevators have been erected at stations.

The portion of the road between Winnipeg and Edmonton—795 miles—has been regularly operated for public traffic since September 13, 1909, under authority of the Board of the Railway Commissioners. On the 120 miles west of Edmonton, though there is no regular operation, there has been attached to the construction trains since

SESSIONAL PAPER No. 20

February 1, 1910, a combination passenger and freight car, for the convenience of those concerned.

' MOUNTAIN SECTION.'

Location plans and profiles have been approved by the government and Board of Railway Commissioners from Wolf creek westward for a distance of 289 miles, and from Prince Rupert easterly for 409 miles, leaving a gap of 138 miles.

Of the 289 miles from Wolf creek westerly, only 179 miles have, as yet, been put under contract.

As the contracts were only awarded late last autumn, very little work has been done beyond the first mile west of Wolf creek. The work on this mile is very heavy, there being two large steel bridges to be erected, and a cutting of over 130,000 cubic yards to be taken out. The first structure will be 622 feet in length and 130 feet high, crossing Wolf creek. The second structure is to span the MacLeod river; it will be 1,052 feet long, and 125 feet high. The concrete piers, pedestals and abutments of these two bridges are completed in readiness to receive the superstructure.

The erection of the superstructures of these two bridges will be carried on simultaneously, so as to have them completed at the earliest possible date, in order that the tracklaying may be proceeded with during the ensuing summer season.

During the winter season, over 3,600 car loads of plant and supplies reached Wolf creek and were at once forwarded and distributed by teams along the line of work.

Of the 409 miles from Prince Rupert easterly, 240 miles are under contract.

Of the first 100 miles out of Prince Rupert easterly the grading and culvert structures are far advanced towards completion.

About seven miles of track have been laid easterly from Prince Rupert, and sufficient rails and fastenings have been delivered to cover 200 miles, together with enough ties for 100 miles.

A wharf has been built at Prince Rupert; also a warehouse.

On the 140 miles east of the first 100 miles, very little work has been done pending the opening of navigation on the Skeena river.

QUEBEC BRIDGE RECONSTRUCTION.

By the Act of 1908, chapter 59, the Governor in Council was authorized to take over the whole undertaking, assets, property and franchises of the Quebec Bridge and Railway Company. By an order in council of August 17, 1908, such authority was given, and the property was assumed on December 1, 1908. The transfer was made by a deed of assignment and transfer, dated October 18, 1909.

The chairman of the special Board of Engineers, constituted by Order in Council of August 17, 1908, for the work of reconstruction, has reported on the progress made during the fiscal year, ended March 31, 1910; his report will be found printed in the appendices hereto.

Results of the borings made to determine the nature of the material in the vicinity of the present piers, and the location of bed rock have established the feasibility of sinking a new pier down to bedrock outside of the present pier on the north side

1 GEORGE V., A. 1911

of the river, and that on the south side the foundations of the present pier are sufficient to support the enlarged work.

The contract for the construction of the piers and abutments of the new bridge was awarded in December, 1909, and preparatory work on the north side has been steadily carried on since.

In the same month, the contract for the removal of the debris was awarded, and by the close of the year about 21 per cent of the total work was executed.

Contracts have been made for the important work of carrying out compression and tension tests, and the question of the use of nickel steel rivets for joints instead of carbon steel was also submitted to careful test, but without developing any material advantage to be gained by the use of nickel steel.

By the close of the year the plans and specifications of the Board for a bridge on a cantilever design had made such progress as to ensure their being in readiness for the early calling for tenders. Intending tenderers, however, have been notified that, in addition, they will be allowed to submit plans prepared by themselves.

The expenditure during the year, for the preparation of plans, salaries, &c., amounted to \$111,788.02, adding to which the sum of \$355,279.07, the amount paid for acquiring the stock of the Quebec Bridge and Railway Company, and the further sum of \$31,765.44, the expenses of the commission of inquiry into the causes of the collapse of the old structure, the total expenditure since the date of the collapse is \$498,832.53.

There is, however, a credit of \$100,000, the amount paid to the government by the Phœnix Bridge Company, the original contractors for the superstructure, under an agreement, dated March 12, 1910, made with them, under authority of an order in council of February 22, 1910, in settlement of the claims of the government for damages and the counter claims of the company in this connection; the company releases to the government all its interest in the steel and manufactured materials used or intended to be used then at the bridge site and storage yards there and at Quebec, and the government releases to the company all its interest in the steel and manufactured materials then at the company's works at Phœnixville, Pa., U.S.A., together with the government lien on the company's working plant, equipment, &c., then at the site of the bridge and said storage yards.

By this agreement and settlement the company surrenders all rights it previously possessed under contract for the construction of the bridge.

SUBSIDIZED RAILWAYS.

Information as to subsidized railways is given in the statements of the accountant and the law clerk of the department, respectively, which will be found in the appendices hereto. The accountant's statement shows all payments made, year by year, since the beginning of the system of railway subsidies; the law clerk's statement shows the several subsidy agreements entered into during the past year, with certain details of the specification in each case.

SESSIONAL PAPER No. 20

CANALS.

The total expenditure on the Dominion canals for the twelve months ended March 31, 1910, was \$3,259,097.18, comprising, for works of construction, \$1,650,706.64, charged to capital; \$489,256.68 for maintenance, charged to income; \$604,899.26 for staff and \$514,234.60 for repairs; the last two items being charged to revenue.

The balance of rentals due on April 1, 1909, was \$148,795.35. The rentals accrued during the year amounted to \$176,126.70, making a total of \$324,922.05. Of this amount, there was collected during the year a total of \$168,893.63. The balance remaining due on March 31, 1910, after deducting abatements, was \$148,266.82. It should be observed that, as a general rule, rentals are payable in advance, this fact accounting, to a considerable extent, for the large amount of rentals due at the end of each year.

The total net revenue collected amounted to \$194,685.84, the balance being made up of wharfage dues, fines, &c. Of this amount, refunds were made to the extent of \$1,301.56, leaving the net revenue \$193,384.28.

• No tolls are charged on any of the Dominion canals.

Summaries of these expenditures and receipts will be found in the statements furnished by the accountant of the department, printed in the appendices, Part I, of the present report.

The above figures relate to the fiscal year 1909-10, but very voluminous statistics relating to canal traffic, and various commercial statistics for the season of navigation of the year 1909 will be found in the 'Canal Statistics,' which are issued as a separate report.

The principal facts of these statistics, summarized, are as follows:—

The total traffic through the several canals of the Dominion for the season of 1909 amounted to 33,720,748 tons, an increase of 16,217,928 tons compared with the previous year. 272,222 passengers were carried, a decrease of 8,608.

The following features of the principal canal traffic during the season of 1909, will be of interest:—

On the Welland canal, 2,025,951 tons of freight were moved, an increase of 322,498 tons. Of the total, 921,866 tons were agricultural products and 186,614 tons produce of the forest; of coal, 377,681 tons were carried; 1,976,040 tons were through freight, of which 1,325,023 tons passed eastward.

Of the through freight, Canadian vessels carried 1,247,694 tons, an increase of 326,373 tons, and United States vessels 728,346 tons, a decrease of 45,762.

The total through freight passed eastward and westward through this canal to United States ports was 445,419 tons, a decrease of 3,235 tons compared with the year 1908.

The quantity of grain passed down the Welland and St. Lawrence canals to Montreal, was 652,742 tons, a decrease of 103,399 tons as compared with the previous year; no transshipments have been made at Ogdensburg since 1903.

On the St. Lawrence canals, 2,410,629 tons of freight were moved, an increase of 123,652 tons, of which 1,564,584 tons were eastbound freight, and 846,045 tons westbound freight; 773,730 tons were agricultural products; 639,767 tons coal; and 509,157 tons forest products.

1 GEORGE V., A. 1911

On the Ottawa river canals, the total quantity of freight moved was 336,939 tons, an increase of 78,412 tons, of which 232,025 tons were produce of the forest.

On the Chambly canal, 752,117 tons were moved, an increase of 248,841 tons, of which 599,330 tons were produce of the forest and 98,533 tons of coal.

On the Rideau canal, 91,774 tons were carried, an increase of 2,134 tons; 26,727 tons being produce of the forest, and 15,633 tons of coal.

On the St. Peter's canal, 79,850 tons were carried, an increase of 7,835 tons; 41,301 tons were coal.

On the Murray canal, 102,291 tons passed, an increase of 76,390 tons.

On the Trent canal, 59,952 tons were moved, of which 55,086 tons were product of the forest.

On the Sault Ste. Marie canal the total movement of freight was 27,861,245 tons, being an increase of 15,102,029 tons, carried in 6,331 passages of vessels, the number of lockages being 5,046. Of wheat, 74,401,000 bushels and of other grain, 29,503,240 bushels were carried; 2,522,700 barrels of flour; 21,156,915 tons of iron ore; 2,797,699 tons of coal; and 34,309,300 feet, board measure, of lumber.*

By means of the enlarged Canadian canal system and the intermediate waterways, a minimum depth of fourteen feet of water from Lake Superior to the head of the ocean navigation at Montreal is afforded; the smallest locks being 270 feet in length and 45 feet in width, intended, for the purpose of ordinary traffic, to accommodate vessels 255 feet long and 44 feet beam.†

The foot note below relating to the Erie canal will be found of interest.**

* The following summary of the total traffic of the American and Canadian canals at Sault Ste. Marie for the season of 1909 is taken from the statistical report prepared under the direction of Lieut.-Col. C. McD. Townsend, Corps of Engineers, U.S. Army:—

Total freight carried, tons, 57,895,149; total tons, net register, 46,751,717; total mile-tons, 46,812,929,345; total valuation placed on freight carried, \$626,104,173; total amount paid for freight transportation, \$36,291,948; total number of registered vessels using the canals, 870; total number of passages by unregistered crafts carrying freight, 242; total valuation placed on registered vessels, \$126,892,000; total number of passengers transported, 59,948; average distance freight was carried, 809 miles; average cost per ton for freight transportation 63 cents; average cost per mile per ton, 0.78 mills; average value per ton of freight carried, \$10.81.

The total freight traffic of 57,895,149 net tons for the season of 1909, when compared with the season of 1908, shows an increase of 40 per cent, or 16,504,592 tons, and the net registered tonnage of 46,751,717 tons shows an increase of 50 per cent, or 15,659,987 tons.

The traffic through the American canal was 52 per cent of the total freight, 62 per cent of the net registered tonnage, and 46 per cent of the total number of passengers carried, the amounts being 30,132,374 tons of freight, 28,939,463 tons register, and 27,736 passengers. Compared with the season of 1908 there was an increase of 1,475,077 tons of freight, or 5 per cent; 7,451,964 tons register, or 35 per cent; and 4,657 passengers, or 20 per cent.

The traffic through the Canadian canal was 48 per cent of the total freight, 38 per cent of the total registered tonnage, and 54 per cent of the passengers carried, the amounts being 27,762,775 tons of freight, 17,812,254 tons register, and 32,212 passengers. Compared with the season of 1908, there was an increase of 15,029,515 tons of freight, or 118 per cent; 8,208,023 tons register, or 85 per cent; and 2,004 passengers, or 7 per cent.

It has to be observed that the traffic figures do not, in all cases, agree with those of the Canadian canal returns, a fact which is probably due to certain differences existing between the standards and classifications of the two countries.

† In exceptional cases this length can, with certain manœuvering, be somewhat increased, being governed, of course, by the form of the vessel. As a matter of fact, there are vessels now using the canals whose length, over all, is 265 feet, and width of beam 37 feet.

** The Erie canal, between Buffalo and Albany, is 350½ miles long; comprises 72 locks, 110 x 18 feet, with a depth of 7 feet of water, accommodating, as a maximum, vessels of 240 tons burden. The original canal was completed in 1836, and the enlargement to the above dimensions in 1862. The total cost of construction was \$51,609,200.

There is now under construction an enlarged canal, authority for which was given in 1903. The locks were to be 328 feet long by 28 feet wide in the clear, with 11 feet of water on the mitre sills. The estimated cost was \$100,562,993. It was intended to accommodate barges of 1,000 tons burden. In 1905 the width of the locks was increased to 45 feet, and construction is proceeding on this basis. When completed, it will permit the passage of lake boats carrying 2,600 tons.

SESSIONAL PAPER No. 20

The through route between Montreal and Fort William and Port Arthur, on the west shore of Lake Superior, comprises 73 miles of canal, with 48 locks, and 1,167 miles of river and lake water, or a total of 1,230 miles. From Montreal to Duluth, at the southwest of Lake Superior, the total distance is 1,354 miles, and to Chicago, 1,286 miles. A summary of this route will be found in Part VIII., with details of the several works. At Port Arthur and at Fort William (about six miles apart), the Canadian Pacific railway gives communication westward and eastward, and the Canadian Northern railway westward and with the south at Fort William. A line of railway has been built from Fort William by the Grand Trunk Pacific railway to give communication with the Transcontinental railway, and over that road to Winnipeg.

The approaches to the canals and the channels through the intermediate river reaches are well defined, and are lighted with gas buoys under the control of the Department of Marine and Fisheries, admitting of safe navigation, in the hands of competent pilots, both by day and night. In the cases of the Sault Ste. Marie, the Welland, the Cornwall, the Soulanges and the Lachine, they are well lighted throughout by electricity. The Sault Ste. Marie, the Welland, the Cornwall, the Soulanges and the Lachine canals are electrically operated. The Farran's Point canal is lighted with acetylene gas.

On the Lachine canal, the principal features of work have been the facing with concrete of the slope walls in the reach above the Côte St. Paul locks, and the widening of the canal at this point, and the provision of wharf accommodation at St. Henri and Côte St. Paul, of which a large proportion was completed during the year.

On the Soulanges canal similar work of concrete protection has been carried on.

The action of the waters of Lake St. Francis on the clay dykes at Ste. Barbe and Hungry bay is being met by the construction of boulder protection, which is now completed at Hungry bay, at which point the macadamizing of the roadway on the top of the dyke has been completed for a considerable distance.

The high water in the River Ottawa prevented the completion of the repairs to the Carillon dam during the year, but all preparations had been made for resumption of work in the following season.

On the Chambly canal, the electric power house was completed, but the electric machinery has not yet been installed.

The improvements in the harbour of St. Johns, placed under contract in 1908, comprise the removal of an old wharf, an extension of the present canal wharf up to the railway bridge, the building of a new wharf, and a breakwater, &c. They were completed during the year so far as regards the works above the bridge.

On the Trent canal, the extent completed remains the same as in the previous year, namely, 160 miles, extending from Lake Simcoe to Healeys Falls, a point sixteen miles below the village of Hastings; the canal was operated for this distance. The water was satisfactorily maintained at a uniform height throughout the year.

A considerable amount of work in the way of repair and improvement was executed, notably in the dredging of portions of the River Otonabee, the raising of private wharfs in Stony lake to meet the raise in water level necessitated by the requirements of navigation, various improvements at Fenelon Falls, and in the repair of the

1 GEORGE V., A. 1911

several dams controlling the various reservoir systems acquired from the Ontario government. In two important cases, new concrete dams were built.

The construction of the Ontario-Rice Lake division of the canal is dealt with in an interesting and comprehensive report of the superintending engineer, which will be found in the appendices hereto.

The division is 56½ miles in length, extending from Trenton, on Lake Ontario, to Rice lake, of which five out of the seven sections into which it has been divided are under contract. It follows the River Trent, and will comprise nine and a half miles of canal, thirteen miles of subaqueous channel, and thirty-four miles of deep river; the total rise between low water level on Lake Ontario and normal navigation level at Rice lake is 369 feet, to be overcome by eighteen locks. The river level will be controlled by fourteen concrete dams; sixteen bridges will be required, six of which are for the accommodation of railways; they will all be swing or bascule spans except one. The locks will be of concrete, with 8 feet 4 inches of water on the sills; they will be 175 feet long between the hollow quoins, and 33 feet in width, accommodating barges of 1,000 tons, about 150 feet long and of 30 feet beam, drawing 8 feet of water. The work involved will require the removal of about 1,500,000 cubic yards of earth, 1,250,000 cubic yards of rock, loose and solid, and the building of about 400,000 cubic yards of concrete. The approximate cost is set down at \$6,750,000; of this, up to March 31, 1910, there had been expended the sum of \$1,285,992. Five of the locks and six of the dams have been built. Details of the work done will be found in the above mentioned report of the superintending engineer.

In addition to the work on this division, a contract for the construction of a new concrete dam at Burleigh Falls has been entered into to replace the present dilapidated wooden structure. This is part of a scheme to raise the level of Lovesick lake to the level of Deer bay, a difference of about four feet, dispensing with the present lift lock at Lovesick, and the flight lock at Burleigh Falls, and replacing them by a single lock at the latter place.

On the Lindsay section, the new lock and dam at Lindsay, placed under contract in January, 1909, are finished, and the dam sluices have been of service in dealing with the spring freshets, which have caused trouble in the past in the Seugog river above Lindsay.

On the Rosedale section, a contract was entered into in February, 1908, for the work of building a new canal between Lakes Cameron and Balsam, 1.8 mile in length, together with a new lock and dam to take the place of the old wooden structures; thus shortening by 1.2 mile, the distance between the two lakes. The lock is completed and the excavation for the canal.

The Holland River division extends from Cook's bay, Lake Simcoe, to Holland Landing, 8½ miles, all on the Lake Simcoe level, and from Holland Landing to Newmarket, 4½ miles, on which distance there is a rise of 43 feet, to overcome which three locks will be required, together with three dams; the work on this section (No. 2) was placed under contract in February, 1908, and about 37 per cent has been executed up to March 31, 1910.

Hydrographic surveys of the various lakes embraced in the Trent navigation have been carried on, with the object of making a complete set of charts of these waters.

SESSIONAL PAPER No. 20

No action has, so far, been taken with regard to the adoption of a route for the northern section of the canal, from Lake Simcoe to Georgian Bay, beyond the making of surveys of alternative routes.

On the Galops canal, the work of removing certain shoals in the River St. Lawrence west of the upper entrance to the canal was completed, the result being to afford a clear channel, 17 feet deep, between the upper entrance and the lower end of what is known as the 'north channel.' All the enlargement works undertaken in connection with the Ontario-St. Lawrence canals district have now been completed.

At the same time, it should be noted that the intermediate river stretches present some serious difficulties, vessels being compelled to cross the river from side to side in order to follow the devious marked channel; a drawback to navigation which could be remedied by straightening the channel at certain points, removing shoals and improving the entrances to the Farran Point and Rapide Plat canals.

On the Cornwall canal, preliminary steps were taken for the improvement of the upper entrance of the canal, where the approach to the lock is extremely difficult, and plans and specifications have been prepared for an approach wall and certain dredging, &c.

The permanent work of repair of the serious break in the south canal bank, which occurred in June, 1908, has been completed, under contract, during the year, and by carrying it on, day and night, the canal was opened for navigation on May 3, 1909. The whole of the works were completed in the following October. It may be observed that, notwithstanding the grave nature of the break, which carried away about 200 feet of the bank, the actual delay to navigation was only seventeen days, a temporary dam and diversion having been made to obtain this result. In view of evidence of weakness in the bank immediately west of the washout, it was decided to extend the new concrete wall for a further distance, and the work has been placed under contract.

On the Rideau canal, the freshets of 1909, the highest on record, caused a very serious washout at Black Rapids, the water cutting into the sand bank of the river at the end of the new dam, making a breach of about 200 feet in length. The work of repair, exceptionally difficult under the circumstances, entailed a delay of six weeks in opening the canal to navigation. A considerable amount of work of repair and improvement at various points on this extensive water course was carried out during the year.

On the Welland canal, the clearing up of the harbour at Port Colborne is in progress, and a channel to the elevator 22 feet deep when there is a depth of 14 feet on the lock sills, is now available. A spur line of railway has been built from the Grand Trunk railway to the elevator. In connection with the surveys that have been conducted in order to obtain information in the event of decision to build a new Welland canal, borings have been made to determine the nature of the ground at various points.

On the Sault Ste. Marie canal, the work of improving the channel at the upper entrance of the canal by deepening it to 21 feet 5 inches at low water stage and providing a width of 500 feet, was completed; the middle section, through the Vidal Shoals, about two miles above the lock, being finished during the year. The channel-way on the north side of the canal above the north pier is under contract.*

* It may be noted that a new lock is now in course of construction by the United States government, which is to be 1,350 feet long by 80 feet wide, and to have a depth of 25 feet on the sills at low water stage.

1 GEORGE V., A. 1911

On June 9, 1909, an accident of a most serious character occurred, the details of which are fully given in the report of the superintending engineer herewith. A steamer was in the lock, and another just entering the upper end when a third steamer entered the lower approach, and its engines failing to reverse at the proper time, the vessel was carried against one of the lower lock gates, forcing it back. The resultant rush of water was most disastrous, both to the vessels and the lock works, all four of the gates being broken, and other damage done. The immense movable dam above the lock was brought into action and proved of service, though some points of weakness developed in it. Navigation was not resumed until the 21st.

On two occasions during the season, the Poe lock, on the American side of the river, was out of commission for periods of three and eight days, respectively. As indicating the extent of traffic at this point, and the importance of having sufficient accommodation to deal with it in the event of accident, it may be observed that on the first of these occasions, the Canadian canal was worked continuously for 101 hours, passing 184 vessels of an aggregate of 553,287 tons register, and on the second for 264 continuous hours, passing 460 vessels of a total of 1,372,145 tons register. There were 112 vessels at one time waiting for passage; a formidable blockade which entailed a loss in their earnings estimated at \$250,000.

RAILWAY STATISTICS.

The digest of the sworn statements of railway companies relating to their operations in Canada for the twelve months ended June 30, 1909, is prepared by the Departmental Comptroller of Statistics, and is issued as a separate report.

CANAL STATISTICS.

The traffic statistics of the Dominion canals for the season of navigation of 1909 are compiled under the direction of the same officer, and are also issued as a separate report.

I have the honour to be, Sir,

Your obedient servant,

A. W. CAMPBELL.

*Deputy Minister, and Chairman of the
Government Railways Managing Board.*

APPENDICES

PART I

STATEMENTS

OF THE

ACCOUNTANT OF THE DEPARTMENT

SHOWING

EXPENDITURE ON RAILWAYS AND ON CANALS

(INCLUDING SUBSIDIZED RAILWAYS)

AND RECEIPTS

FOR THE FISCAL YEAR 1909-10

ALSO FOR PREVIOUS YEARS

STATEMENT showing the amount expended by the Department of Railways and Canals,
Dominion of Canada, during the Fiscal Year ended March 31, 1910.

CANALS.

| Name of Work. | Chargeable to Capital. | Chargeable to Income. | CHARGEABLE TO REVENUE. | |
|---|------------------------------|-----------------------------|------------------------|------------|
| | | | Staff. | Repairs. |
| CANALS. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Beauharnois | | 24,319 49 | | |
| Carillon. .: } | | | | |
| Grenville.. } | | 10,410 09 | 23,512 72 | 11,925 28 |
| Chambly | 30,479 41 | 8,207 00 | 29,198 76 | 22,825 53 |
| Cornwall | 89 54 | 35,549 06 | 76,519 49 | 51,330 83 |
| Galops..... | 2,057 86 | 13,694 97 | | |
| Lachine..... | 215,611 98 | 70,000 20 | 77,701 55 | 75,247 71 |
| Murray..... | | | 4,378 74 | 2,674 57 |
| Rideau | | 9,225 73 | 48,324 13 | 95,188 97 |
| Sault Ste. Marie | 46,809 13 | 147,147 52 | 18,976 64 | 20,300 77 |
| Soulanges.. .. | 153,022 23 | 2,299 93 | 32,851 69 | 46,287 16 |
| Ste. Anne's Lock.. .. | | 2,339 76 | 2,267 60 | 2,446 28 |
| St. Ours | | 1,925 08 | 4,137 64 | 1,752 66 |
| St. Lawrence River { Removal of shoals..... | 28,815 36 | | | |
| { District Office..... | 5,573 96 | | | |
| St. Peters..... | | | 3,449 43 | 238 14 |
| Trent.. .. | 1,000,000 00 | 59,483 51 | 36,800 42 | 54,206 13 |
| Welland..... | 168,247 17 | 75,233 28 | 136,783 47 | 77,723 23 |
| Williamsburg | | | 20,682 88 | 29,645 76 |
| Totals | 1,650,706 64 | 459,835 62 | 515,585 16 | 491,793 02 |
| GENERAL ON CANALS. | | | | |
| Dredge Vessels - Lachine..... | | | | 7,668 29 |
| Rideau | | | | 14,219 64 |
| Miscellaneous | | | 1,582 40 | 553 65 |
| Salaries and Contingencies Statistical Officers, &c..... | | | 37,502 73 | |
| Sunday labour..... | | | 30,109 89 | |
| Surveys and Inspections..... | | 2,012 52 | | |
| Quebec Canals { Maintenance | | | 20,119 08 | |
| { Remarking boundaries, &c.. | | 4,596 96 | | |
| { Dredging | | 17,999 29 | | |
| Miscellaneous works not provided for | | 4,812 29 | | |
| | | 29,421 06 | 89,314 10 | 22,441 58 |
| Total on Canals..... | 1,650,706 64 | 489,256 68 | 604,809 26 | 514,234 60 |

Grand total, canals, \$3,259,097.18.

STATEMENT showing the amount expended by the Department of Railways and Canals, &c.—*Concluded.*

RAILWAYS.

| Name of Work. | Chargeable to Capital. | Chargeable to Income. | CHARGEABLE TO REVENUE. | |
|---|------------------------------|-----------------------------|------------------------|------------|
| | | | Working Expenses. | |
| RAILWAYS. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Intercolonial | 1,278,409 45 | | 8,645,070 33 | |
| National Transcontinental. | 19,968,126 86 | | | |
| Prince Edward Island | 206,396 97 | | 427,283 73 | |
| Windsor Branch | | | 23,549 90 | |
| Total | 21,452,933 28 | | 9,095,903 96 | |
| GENERAL ON RAILWAYS. | | | | |
| Contribution to McGill University..... | | 2,500 00 | | |
| Railway Subsidies | | 2,048,097 05 | | |
| Governor General's Car | | 1,966 62 | | |
| Railway Commission maintenance, &c | | 112,465 04 | | |
| " " Statutory | | 46,500 00 | | |
| Subscription to Railway Congress, Brussels.. | | 97 33 | | |
| Surveys and Inspections | | 17,085 87 | | |
| Government Director Grand Trunk Pac. Ry. | | 2,000 00 | | |
| Inspections Grand Trunk Pac. Ry. | | 17,644 66 | | |
| Hudson Bay Railway Surveys | 53,042 63 | | | |
| Quebec bridge— | | | | |
| Preparing plans, &c | | 111,788 02 | | |
| Railway Grade Crossing Fund | | 70 00 | | |
| | | 2,360,214 59 | | |
| Less amount received from the Phoenix Bridge Company | | 100,000 00 | | |
| Total | 53,042 63 | 2,260,214 59 | | |
| Total on railways | 21,505,975 91 | 2,260,214 59 | 9,095,903 96 | |
| Grand total Railways. \$32,862,094.46 | | | | |
| MISCELLANEOUS. | | | | |
| Cost of litigation | | 4,706 79 | | |
| Grand totals railways and canals, including miscellaneous | 23,156,682 55 | 2,754,178 06 | 9,700,803 22 | 511,234 60 |

Total amount of expenditure, \$36,125,898.43.

NOTE.—Up to and including the year 1906, the fiscal year ended June 30, after which it ends March 31.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

STATEMENT showing the amount expended on Construction, Renewals, Ordinary Repairs and Working Staff, up to March 31, 1910.

ST. PETER'S CANAL.

| | Year ending | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|----------------|----------------------|---|-----------|-----------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation | | 156,523 32 | | | |
| " since " .. 1868 | 1868 | 21,519 72 | | | |
| " " " .. 1869 | 1869 | 70,719 80 | | | |
| " " " .. 1870 | 1870 | | 46,193 57 | | |
| " " " .. 1871 | 1871 | | | 225 36 | 555 78 |
| " " " .. 1872 | 1872 | | | 280 00 | 6,122 07 |
| " " " .. 1873 | 1873 | | | 343 32 | 6,539 58 |
| " " " .. 1874 | 1874 | | | 725 93 | 1,558 57 |
| " " " .. 1875 | 1875 | 20 97 | | 560 00 | 889 35 |
| " " " .. 1876 | 1876 | 11,125 00 | | 641 55 | |
| " " " .. 1877 | 1877 | 63,330 18 | | 600 00 | 17 45 |
| " " " .. 1878 | 1878 | 26,511 51 | | 600 00 | |
| " " " .. 1879 | 1879 | 107,337 75 | | 631 50 | |
| " " " .. 1880 | 1880 | 80,120 54 | | 400 00 | |
| " " " .. 1881 | 1881 | 69,434 76 | | 959 58 | |
| " " " .. 1882 | 1882 | 484 00 | | 1,920 54 | 200 63 |
| " " " .. 1883 | 1883 | | | 2,089 19 | 232 42 |
| " " " .. 1884 | 1884 | 2,471 40 | | 2,601 47 | 367 85 |
| " " " .. 1885 | 1885 | 16,820 15 | | 1,929 11 | 183 11 |
| " " " .. 1886 | 1886 | 2,316 85 | | 2,360 67 | 297 81 |
| " " " .. 1887 | 1887 | 1,087 75 | 750 00 | 2,777 13 | 343 23 |
| " " " .. 1888 | 1888 | | | 3,217 77 | 1,588 40 |
| " " " .. 1889 | 1889 | | 500 00 | 3,085 29 | 353 38 |
| " " " .. 1890 | 1890 | | | 3,110 15 | 255 34 |
| " " " .. 1891 | 1891 | 972 65 | 510 53 | 3,255 30 | 312 02 |
| " " " .. 1892 | 1892 | 14,387 00 | 30,936 82 | 3,007 70 | 1,461 24 |
| " " " .. 1893 | 1893 | 811 59 | 9,987 78 | 2,938 15 | 1,856 30 |
| " " " .. 1894 | 1894 | 437 05 | 3,852 21 | 2,935 94 | 1,986 70 |
| " " " .. 1895 | 1895 | 868 44 | 26,222 46 | 2,499 81 | 353 55 |
| " " " .. 1896 | 1896 | 1,455 21 | 16,743 64 | 2,182 04 | 260 90 |
| " " " .. 1897 | 1897 | | | 2,728 38 | 1 20 |
| " " " .. 1898 | 1898 | | 111 70 | 2,785 25 | 453 85 |
| " " " .. 1899 | 1899 | | | 2,819 86 | 456 61 |
| " " " .. 1900 | 1900 | | | 2,833 24 | 1,483 30 |
| " " " .. 1901 | 1901 | | 2,311 26 | 2,730 44 | 841 63 |
| " " " .. 1902 | 1902 | | 10,014 43 | 2,939 81 | 274 44 |
| " " " .. 1903 | 1903 | | | 2,836 49 | 764 11 |
| " " " .. 1904 | 1904 | | | 3,126 94 | 122 45 |
| " " " .. 1905 | 1905 | | 3,000 10 | 2,969 90 | 1,095 90 |
| " " " .. 1906 | 1906 | | | 3,239 19 | 253 65 |
| " " " .. 1907 | 1907 | | | 2,468 78 | 246 87 |
| " " " .. 1908 | 1908 | | | 3,371 13 | 942 64 |
| " " " .. 1909 | 1909 | | | 3,282 22 | 532 78 |
| " " " .. 1910 | 1910 | | | 3,449 43 | 238 14 |
| Less—Refunds in 1897-8..... | | 648,755 64 208 50 | | | |
| Total | | *648,547 14 | 151,134 50 | 87,458 56 | 33,443 25 |

* Expenditure as above..... \$ 648,547 14
Less expenditure prior to Confederation 156,523 32

Agreeing with Public Accounts, 1910, page 4.....\$ 492,023 82

W. C. LITTLE,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS.

OTTAWA, July 23, 1910.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—Continued.

BAIE VERTE CANAL.

| | | | Year ending. | Capital. | Income. |
|---|-------|---|-----------------|----------|-----------|
| | | | | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation | | | | | |
| " | since | " | 1868 | | |
| " | " | " | 1869 | | |
| " | " | " | 1870 | | |
| " | " | " | 1871 | | 17,929 34 |
| " | " | " | 1872 | | 6,399 41 |
| " | " | " | 1873 | | 14,943 83 |
| " | " | " | 1874 | | 4,018 90 |
| " | " | " | 1875 | | 443 00 |
| " | " | " | 1876 | | 110 75 |
| " | " | " | 1877 | | 22 30 |
| " | " | " | 1878 | | |
| " | " | " | 1879 | | |
| " | " | " | 1880 | | |
| " | " | " | 1881 | | 520 00 |
| " | " | " | 1882 | | |
| " | " | " | 1883 | | |
| " | " | " | 1884 | | |
| " | " | " | 1885 | | |
| " | " | " | 1886 | | |
| " | " | " | 1887 | | |
| " | " | " | 1888 | | |
| " | " | " | 1889 | | |
| " | " | " | 1890 | | |
| " | " | " | 1891 | | |
| " | " | " | 1892 | | |
| " | " | " | 1893 | | |
| " | " | " | 1894 | | |
| " | " | " | 1895 | | |
| " | " | " | 1896 | | |
| " | " | " | 1897 | | |
| " | " | " | 1898 | | |
| " | " | " | 1899 | | |
| " | " | " | 1900 | | |
| " | " | " | 1901 | | |
| " | " | " | 1902 | | |
| " | " | " | 1903 | | |
| " | " | " | 1904 | | |
| " | " | " | 1905 | | |
| " | " | " | 1906 | | |
| " | " | " | 1907 | | |
| " | " | " | 1908 | | |
| " | " | " | 1909 | | |
| " | " | " | 1910 | | |
| Total..... | | | | | 44,387 53 |

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Continued*.
LACHINE CANAL.

| | Year ending. | Capital. | | Renewals Chargeable to Income. | Staff. | Repairs. | | | | |
|--|-----------------|-----------|------------|---|-----------|----------|-----------|--------|-----------|----|
| | | \$ | cts. | \$ | cts. | \$ | cts. | | | |
| Expenditure by Imperial Gov- ernment | | 40,000 | 00 | | | | | | | |
| Government expenditure prior to Confederation | | 2,547,532 | 85 | | | | | | | |
| Government expenditure since Confederation | 1868 | | | 1,852 | 70 | 13,742 | 05 | | | |
| " | 1869 | 2,000 | 00 | | 14,209 | 02 | 12,085 | 84 | | |
| Cost of original construction and enlargement from 1845 to 1848 | | | 2,589,532 | 85 | | | | | | |
| Expenditure by Dominion Gov- ernment. | 1870 | | | | 15,834 | 49 | 13,302 | 39 | | |
| " | 1871 | | | 12,231 | 40 | 17,478 | 52 | 15,093 | 25 | |
| " | 1872 | 36,708 | 15 | | 16,076 | 93 | 12,334 | 69 | | |
| " | 1873 | 7,824 | 28 | 35,158 | 21 | 23,601 | 03 | 34,300 | 60 | |
| " | 1874 | 158,618 | 35 | | 25,811 | 07 | 22,828 | 66 | | |
| " | 1875 | 197,420 | 52 | | 28,592 | 01 | 30,057 | 34 | | |
| " | 1876 | 327,769 | 39 | | 33,797 | 73 | 29,103 | 65 | | |
| " | 1877 | 1,439,375 | 73 | | 33,148 | 86 | 19,824 | 33 | | |
| " | 1878 | 1,484,619 | 63 | | 39,062 | 97 | 13,646 | 41 | | |
| " | 1879 | 958,053 | 30 | | 42,338 | 84 | 12,400 | 78 | | |
| " | 1880 | 369,566 | 74 | | 38,950 | 90 | 10,223 | 62 | | |
| " | 1881 | 292,165 | 51 | | 39,027 | 99 | 19,888 | 33 | | |
| " | 1882 | 252,821 | 33 | 2,978 | 66 | 41,158 | 90 | 17,116 | 46 | |
| " | 1883 | 396,496 | 96 | 1,859 | 68 | 45,554 | 91 | 18,199 | 59 | |
| " | 1884 | 188,266 | 18 | | 48,624 | 51 | 19,683 | 24 | | |
| " | 1885 | 111,215 | 23 | | 49,004 | 85 | 20,199 | 78 | | |
| " | 1886 | 210,509 | 42 | | 50,969 | 10 | 19,199 | 18 | | |
| " | 1887 | 28,772 | 52 | 12,981 | 59 | 53,113 | 97 | 22,567 | 81 | |
| " | 1888 | 19,414 | 34 | 7,996 | 38 | 52,229 | 61 | 19,999 | 64 | |
| " | 1889 | 76,032 | 96 | 972 | 71 | 54,110 | 67 | 22,957 | 71 | |
| " | 1890 | 7,448 | 03 | 8,238 | 46 | 53,114 | 34 | 22,999 | 38 | |
| " | 1891 | 217 | 53 | 16,155 | 75 | 50,721 | 69 | 36,292 | 98 | |
| " | 1892 | 87,852 | 35 | 27,480 | 80 | 52,729 | 37 | 67,499 | 62 | |
| " | 1893 | 445,983 | 21 | 50,937 | 40 | 53,185 | 00 | 51,616 | 79 | |
| " | 1894 | 64,345 | 14 | 17,152 | 48 | 60,174 | 03 | 40,939 | 70 | |
| " | 1895 | 189,944 | 36 | 32,405 | 20 | 56,337 | 44 | 25,891 | 45 | |
| " | 1896 | 184,998 | 25 | 8,193 | 15 | 58,342 | 96 | 24,950 | 20 | |
| " | 1897 | 282,052 | 48 | 14,664 | 21 | 57,533 | 20 | 25,820 | 73 | |
| " | 1898 | 216,717 | 44 | 819 | 62 | 57,282 | 50 | 33,391 | 92 | |
| " | 1899 | 162,351 | 83 | 3,103 | 99 | 55,990 | 00 | 35,776 | 90 | |
| " | 1900 | 125,009 | 41 | 12,210 | 88 | 56,791 | 45 | 31,988 | 81 | |
| " | 1901 | 97,305 | 52 | 12,072 | 87 | 58,364 | 29 | 50,005 | 48 | |
| " | 1902 | 113,328 | 26 | 36,249 | 02 | 59,435 | 33 | 45,853 | 97 | |
| " | 1903 | 58,426 | 92 | 109,893 | 43 | 69,762 | 03 | 53,054 | 20 | |
| " | 1904 | 181,487 | 06 | 162,705 | 14 | 77,233 | 17 | 50,660 | 92 | |
| " | 1905 | 112,460 | 47 | 144,996 | 37 | 86,209 | 93 | 65,202 | 42 | |
| " | 1906 | 103,798 | 28 | 133,518 | 77 | 84,708 | 78 | 60,064 | 84 | |
| " | 1907 | 18,840 | 85 | 65,872 | 25 | 53,308 | 11 | 47,465 | 20 | |
| " | 1908 | 203,307 | 25 | 92,362 | 48 | 74,222 | 78 | 70,427 | 37 | |
| " | 1909 | 359,041 | 77 | 143,526 | 35 | 72,049 | 32 | 82,081 | 39 | |
| " | 1910 | 215,611 | 98 | 70,000 | 20 | 77,701 | 55 | 75,247 | 71 | |
| Cost of enlargement | | | 9,786,178 | 93 | | | | | | |
| Total | | | 12,375,711 | 78 | 1,238,590 | 15 | 2,101,636 | 23 | 1,412,676 | 79 |

Total expenditure on capital account as above \$12,375,711 78
Less charged to St. Lawrence River and Canals, see page 11. \$2,950,104 15
Less expenditure by Imperial Government 40,000 00

2,990,104 15

Agreeing with Public Accounts balance sheet, 1910, page 4..... \$ 9,385,607 63

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

W. C. LITTLE,
Accountant.

1 GEORGE V., A. 1911

STATEMENT showing the amounts expended on Construction, Renewals, &c.—Continued.

BEAUHARNOIS CANAL.

| | | | Year ending. | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|-------|---|-----------------|---------------|---|------------|-------------|
| | | | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation | | | | 1,611,424 11 | | | |
| " | prior | " | 1868 | | 63,193 75 | 9,349 99 | 6,216 98 |
| " | " | " | 1869 | | 55 00 | 9,626 99 | 6,498 57 |
| " | " | " | 1870 | | 27 50 | 10,117 57 | 6,384 81 |
| " | " | " | 1871 | | | 12,316 53 | 5,722 36 |
| " | " | " | 1872 | | 27 50 | 11,792 46 | 15,733 38 |
| " | " | " | 1873 | | 5,122 50 | 12,210 73 | 9,882 06 |
| " | " | " | 1874 | | 26 00 | 15,392 51 | 10,990 56 |
| " | " | " | 1875 | | 36 00 | 14,399 32 | 12,253 01 |
| " | " | " | 1876 | | | 14,465 86 | 17,170 83 |
| " | " | " | 1877 | | | 14,377 63 | 15,207 36 |
| " | " | " | 1878 | | | 14,383 37 | 9,861 05 |
| " | " | " | 1879 | | | 15,015 86 | 10,370 71 |
| " | " | " | 1880 | 266 15 | | 15,362 61 | 8,997 34 |
| " | " | " | 1881 | | | 17,659 93 | 10,770 67 |
| " | " | " | 1882 | | | 18,804 53 | 20,813 86 |
| " | " | " | 1883 | | 6,727 44 | 18,287 77 | 15,826 71 |
| " | " | " | 1884 | | 3,277 98 | 19,107 38 | 16,232 61 |
| " | " | " | 1885 | | 7,999 79 | 18,960 40 | 14,637 70 |
| " | " | " | 1886 | | 8,491 80 | 19,228 90 | 14,356 00 |
| " | " | " | 1887 | | 3,633 57 | 18,867 45 | 14,999 88 |
| " | " | " | 1888 | | 14,411 97 | 19,325 05 | 14,285 98 |
| " | " | " | 1889 | | 10,993 52 | 20,019 11 | 14,982 54 |
| " | " | " | 1890 | | | 19,847 42 | 14,999 20 |
| " | " | " | 1891 | | 17,085 68 | 18,886 86 | 12,537 39 |
| " | " | " | 1892 | | 1,696 23 | 20,050 01 | 14,999 80 |
| " | " | " | 1893 | | | 20,348 34 | 14,107 11 |
| " | " | " | 1894 | | 6,547 72 | 20,574 53 | 13,903 46 |
| " | " | " | 1895 | | 27,982 93 | 20,128 59 | 12,299 49 |
| " | " | " | 1896 | | | 20,725 47 | 15,050 85 |
| " | " | " | 1897 | | 9,813 15 | 21,012 64 | 14,862 98 |
| " | " | " | 1898 | 25,000 00 | 5,799 34 | 20,650 00 | 16,164 92 |
| " | " | " | 1899 | | 1,000 00 | 20,613 22 | 13,463 01 |
| " | " | " | 1900 | | 4,959 22 | 20,147 59 | 14,505 30 |
| " | " | " | 1901 | | 483 40 | 20,118 42 | 14,199 12 |
| " | " | " | 1902 | | | 16,682 52 | 6,532 33 |
| " | " | " | 1903 | | | 8,218 14 | 10,063 38 |
| " | " | " | 1904 | | | 9,236 27 | 11,936 37 |
| " | " | " | 1905 | | 14,949 83 | 9,086 68 | 10,499 99 |
| " | " | " | 1906 | | 2,531 24 | 9,291 91 | 18,640 71 |
| " | " | " | 1907 | | 598 64 | 7,552 02 | 11,711 09 |
| " | " | " | 1908 | | 2,260 81 | 7,032 31 | 13,019 76 |
| " | " | " | 1909 | | 21,758 84 | | |
| " | " | " | 1910 | | 24,319 49 | | |
| Total | | | | *1,636,690 26 | 265,810 84 | 649,574 89 | 525,691 23† |

* See page 11 for total cost of St. Lawrence River and Canals.

† This canal being under lease since 1908, no expenditure has been incurred for maintenance nor operation.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
Ottawa, July 23, 1910.

STATEMENT showing the amounts expended on Construction, Renewals, &c.--*Continued.*
ST. LAWRENCE RIVER AND CANALS, SURVEYS, &c.

* In this total is included an expenditure on capital account of \$227,403.73 on the St. Lawrence River and Canals for the period previous to 1882.

| | | | |
|---|----|------------|----|
| St. Lawrence River and Canals, as above..... | \$ | 3,469,913 | 41 |
| Beauharnois Canal, <i>see</i> page 10..... | | 1,636,690 | 26 |
| Cornwall Canal " 14 | | 7,234,767 | 14 |
| Williamsburg Canal " 16 17..... | | 10,485,611 | 69 |
| Lake St. Louis " 12 | | 298,176 | 11 |
| Soulanges Canal " 29 | | 7,126,135 | 61 |
| Lachine Canal, from prior to Confederation to June 30, 1875, <i>see</i> page 9... | | 2,950,104 | 15 |
| Lake St. Francis, <i>see</i> page 13..... | | 75,906 | 71 |

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

W. C. LITTLE.
Accountant.

1 GEORGE V., A. 1911

STATEMENT showing the amounts expended on Construction, Renewals, &c.--Continued.

LAKE ST. LOUIS.

| | | | | Year ending. | Chargeable to Capital. | Chargeable to Revenue. |
|--|---|-------|---|-----------------|------------------------------|------------------------------|
| | | | | | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation..... | | | | 1868 | | |
| " | " | since | " | 1869 | | |
| " | " | " | " | 1870 | | |
| " | " | " | " | 1871 | | |
| " | " | " | " | 1872 | | |
| " | " | " | " | 1873 | | |
| " | " | " | " | 1874 | | |
| " | " | " | " | 1875 | | |
| " | " | " | " | 1876 | | |
| " | " | " | " | 1877 | | |
| " | " | " | " | 1878 | | |
| " | " | " | " | 1879 | | |
| " | " | " | " | 1880 | | |
| " | " | " | " | 1881 | | |
| " | " | " | " | 1882 | | |
| " | " | " | " | 1883 | | |
| " | " | " | " | 1884 | | |
| " | " | " | " | 1885 | | |
| " | " | " | " | 1886 | | |
| " | " | " | " | 1887 | | |
| " | " | " | " | 1888 | | |
| " | " | " | " | 1889 | | |
| " | " | " | " | 1890 | | |
| " | " | " | " | 1891 | | |
| " | " | " | " | 1892 | | |
| " | " | " | " | 1893 | | |
| " | " | " | " | 1894 | | |
| " | " | " | " | 1895 | 4,753 14 | |
| " | " | " | " | 1896 | 49,909 31 | |
| " | " | " | " | 1897 | 73,300 41 | |
| " | " | " | " | 1898 | 64,495 83 | |
| " | " | " | " | 1899 | 57,607 79 | |
| " | " | " | " | 1900 | 11,765 70 | |
| " | " | " | " | 1901 | 12,918 31 | |
| " | " | " | " | 1902 | 6,000 00 | |
| " | " | " | " | 1903 | 9,508 72 | |
| " | " | " | " | 1904 | 7,916 90 | |
| " | " | " | " | 1905 | † | |
| " | " | " | " | 1906 | † | |
| " | " | " | " | 1907 | † | |
| " | " | " | " | 1908 | † | |
| " | " | " | " | 1909 | † | |
| " | " | " | " | 1910 | † | |
| Total. | | | | | *298,176 11 | |

* Included in total cost of St. Lawrence River and Canals, see page 11.
† Transferred to Department of Marine and Fisheries in 1905.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Continued.*

LAKE ST. FRANCIS.

| | | | | | Year ending. | Capital. | Renewals Chargeable to Income. |
|---|---|---|---|---|-----------------|------------|---|
| | | | | | | \$ cts. | \$ cts. |
| Government expenditure since Confederation... | | | | | 1868 | | |
| " | " | " | " | " | 1869 | | |
| " | " | " | " | " | 1870 | | |
| " | " | " | " | " | 1871 | | |
| " | " | " | " | " | 1872 | | |
| " | " | " | " | " | 1873 | | |
| " | " | " | " | " | 1874 | | |
| " | " | " | " | " | 1875 | | |
| " | " | " | " | " | 1876 | | |
| " | " | " | " | " | 1877 | | |
| " | " | " | " | " | 1878 | | |
| " | " | " | " | " | 1879 | | |
| " | " | " | " | " | 1880 | | |
| " | " | " | " | " | 1881 | | |
| " | " | " | " | " | 1882 | | |
| " | " | " | " | " | 1883 | | |
| " | " | " | " | " | 1884 | | |
| " | " | " | " | " | 1885 | | |
| " | " | " | " | " | 1886 | | |
| " | " | " | " | " | 1887 | | |
| " | " | " | " | " | 1888 | | |
| " | " | " | " | " | 1889 | | |
| " | " | " | " | " | 1890 | | |
| " | " | " | " | " | 1891 | | |
| " | " | " | " | " | 1892 | | |
| " | " | " | " | " | 1893 | | |
| " | " | " | " | " | 1894 | | |
| " | " | " | " | " | 1895 | | |
| " | " | " | " | " | 1896 | | |
| " | " | " | " | " | 1897 | | |
| " | " | " | " | " | 1898 | 3,420 00 | |
| " | " | " | " | " | 1899 | 23,110 00 | |
| " | " | " | " | " | 1900 | 15,431 46 | 12,288 39 |
| " | " | " | " | " | 1901 | 15,000 00 | 8,060 30 |
| " | " | " | " | " | 1902 | 13,945 25 | |
| " | " | " | " | " | 1903 | 5,000 00 | |
| " | " | " | " | " | 1904 | | 2,199 52 |
| " | " | " | " | " | 1905 | † | |
| " | " | " | " | " | 1906 | † | |
| " | " | " | " | " | 1907 | † | |
| " | " | " | " | " | 1908 | † | |
| " | " | " | " | " | 1909 | † | |
| " | " | " | " | " | 1910 | † | |
| Total..... | | | | | | *75,906 71 | 22,548 21 |

* Included in total cost of St. Lawrence River and Canals, *see* page 11.

† Transferred to Department of Marine and Fisheries in 1905.

W. C. LITTLE,
*Accountant.*DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

1 GEORGE V., A. 1911

STATEMENT showing the amounts expended on Construction, Renewals, &c.—Continued.

CORNWALL CANAL.

| | Year ending. | Chargeable to Capital. | | Renewals Chargeable to Income. | Staff. | Repairs. | | | | | |
|---|--------------|------------------------|------|--------------------------------|--------|----------|------|-----------|----|---------|----|
| | | \$ | cts. | \$ | cts. | \$ | cts. | | | | |
| Government expenditure prior to Confederation | | 1,933,152 | 69 | | | | | | | | |
| Government expenditure since Confederation | 1868 | | | 2,786 | 00 | 11,244 | 47 | 3,774 | 18 | | |
| " " " " " " " " | 1869 | 10,692 | 04 | | | 10,347 | 91 | 3,859 | 14 | | |
| " " " " " " " " | 1870 | | | 17,780 | 05 | 10,368 | 16 | 7,145 | 42 | | |
| " " " " " " " " | 1871 | | | 7 | 50 | 11,848 | 39 | 8,891 | 61 | | |
| " " " " " " " " | 1872 | | | 10,000 | 21 | 10,594 | 30 | 8,163 | 70 | | |
| " " " " " " " " | 1873 | | | 1,011 | 75 | 13,042 | 25 | 12,467 | 65 | | |
| " " " " " " " " | 1874 | | | | | 13,405 | 20 | 7,610 | 70 | | |
| " " " " " " " " | 1875 | 1,780 | 00 | | | 13,351 | 91 | 7,097 | 34 | | |
| Cost of original construction | | | | 1,945,624 | 73 | | | | | | |
| Expenditure by Dominion Government | 1876 | | | | | 13,320 | 61 | 6,423 | 67 | | |
| " " " " " " " " | 1877 | 49,211 | 37 | | | 13,375 | 70 | 6,440 | 54 | | |
| " " " " " " " " | 1878 | 145,015 | 45 | | | 13,825 | 50 | 4,935 | 21 | | |
| " " " " " " " " | 1879 | 143,032 | 05 | | | 13,817 | 96 | 4,983 | 15 | | |
| " " " " " " " " | 1880 | 109,454 | 95 | | | 14,440 | 33 | 9,735 | 76 | | |
| " " " " " " " " | 1881 | 53,948 | 14 | | | 15,173 | 60 | 5,524 | 10 | | |
| " " " " " " " " | 1882 | 44,587 | 61 | | | 15,052 | 20 | 6,634 | 62 | | |
| " " " " " " " " | 1883 | 21,728 | 93 | | | 18,283 | 67 | 8,361 | 71 | | |
| " " " " " " " " | 1884 | 22,018 | 13 | | | 18,475 | 48 | 9,007 | 73 | | |
| " " " " " " " " | 1885 | 62,034 | 90 | 16,298 | 96 | 15,988 | 96 | 12,368 | 51 | | |
| " " " " " " " " | 1886 | 57,820 | 83 | 6,960 | 95 | 15,994 | 80 | 11,832 | 83 | | |
| " " " " " " " " | 1887 | 46,966 | 43 | | | 17,520 | 54 | 12,100 | 29 | | |
| " " " " " " " " | 1888 | 67,945 | 74 | | | 16,938 | 54 | 13,942 | 64 | | |
| " " " " " " " " | 1889 | 163,993 | 85 | | | 17,890 | 55 | 58,205 | 26 | | |
| " " " " " " " " | 1890 | 365,038 | 01 | 2,000 | 00 | 17,063 | 49 | 12,758 | 18 | | |
| " " " " " " " " | 1891 | 599,001 | 85 | 1,459 | 98 | 16,077 | 72 | 9,830 | 05 | | |
| " " " " " " " " | 1892 | 398,555 | 25 | 2,345 | 26 | 15,596 | 66 | 9,864 | 36 | | |
| " " " " " " " " | 1893 | 352,536 | 13 | | | 15,173 | 01 | 9,668 | 14 | | |
| " " " " " " " " | 1894 | 404,990 | 22 | | | 15,344 | 02 | 7,733 | 54 | | |
| " " " " " " " " | 1895 | 450,689 | 65 | 21,497 | 74 | 15,414 | 56 | 13,053 | 55 | | |
| " " " " " " " " | 1896 | 448,408 | 31 | 2,175 | 00 | 15,472 | 26 | 25,259 | 56 | | |
| " " " " " " " " | 1897 | 438,487 | 51 | | | 15,540 | 43 | 16,438 | 32 | | |
| " " " " " " " " | 1898 | 133,208 | 96 | | | 15,011 | 50 | 15,431 | 02 | | |
| " " " " " " " " | 1899 | 37,649 | 00 | 15,960 | 80 | 16,000 | 00 | 14,623 | 90 | | |
| " " " " " " " " | 1900 | 169,889 | 51 | 18,547 | 50 | 18,798 | 10 | 13,998 | 29 | | |
| " " " " " " " " | 1901 | 62,032 | 47 | | | 17,104 | 13 | 13,166 | 89 | | |
| " " " " " " " " | 1902 | 90,535 | 18 | | | 17,896 | 58 | 15,045 | 95 | | |
| " " " " " " " " | 1903 | 77,833 | 81 | | | 70,129 | 29 | 19,205 | 66 | | |
| " " " " " " " " | 1904 | 113,795 | 16 | 1,730 | 16 | 45,792 | 64 | 20,932 | 55 | | |
| " " " " " " " " | 1905 | 104,093 | 45 | 8,324 | 83 | 71,073 | 68 | 28,100 | 67 | | |
| " " " " " " " " | 1906 | 37,879 | 09 | 20,063 | 79 | 71,246 | 77 | 31,893 | 13 | | |
| " " " " " " " " | 1907 | 5,218 | 03 | 4,191 | 61 | 52,050 | 56 | 24,489 | 18 | | |
| " " " " " " " " | 1908 | 9,897 | 90 | 11,270 | 83 | 73,651 | 90 | 35,708 | 68 | | |
| " " " " " " " " | 1909 | 495 | 00 | 151,628 | 65 | 75,581 | 54 | 42,978 | 72 | | |
| " " " " " " " " | 1910 | 89 | 54 | 35,549 | 06 | 76,519 | 49 | 51,330 | 83 | | |
| Cost of enlargement | | | | 5,289,142 | 41 | | | | | | |
| Total | | | | *7,234,767 | 14 | 351,590 | 63 | 1,060,839 | 36 | 661,016 | 93 |

*Included in total cost of St. Lawrence River and Canals, see page 11.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Continued.*
WELLAND CANAL.

| | Year ending. | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|-----------------|-----------------|---|--------------|--------------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Imperial Government | | 222,220 00 | | | |
| Government expenditure prior to Confederation | | 7,416,019 83 | | | |
| " since " .. 1868 | | 12,097 84 | | 37,679 05 | 38,852 96 |
| " " " .. 1869 | | 43,486 36 | | 39,060 61 | 50,773 03 |
| " " " .. 1870 | | | 22,173 72 | 40,340 45 | 65,009 19 |
| " " " .. 1871 | | | 48,569 10 | 42,383 33 | 53,381 02 |
| " " " .. 1872 | | 53,680 32 | 6,022 44 | 37,085 37 | 50,276 90 |
| " " " .. 1873 | | 82,282 20 | 47,876 27 | 45,382 99 | 66,550 73 |
| " " " .. 1874 | | 746,420 61 | | 50,966 48 | 103,666 99 |
| " " " .. 1875 | | 1,047,119 91 | | 52,595 00 | 88,539 99 |
| " " " .. 1876 | | 1,569,478 19 | 700 00 | 57,623 31 | 81,376 12 |
| " " " .. 1877 | | 2,199,962 61 | | 59,963 47 | 49,783 93 |
| " " " .. 1878 | | 2,138,392 99 | | 60,138 59 | 66,393 53 |
| " " " .. 1879 | | 1,552,697 41 | | 59,912 23 | 56,755 57 |
| " " " .. 1880 | | 1,252,924 75 | | 63,198 10 | 76,535 25 |
| " " " .. 1881 | | 1,242,943 37 | 6,593 19 | 56,398 04 | 69,249 53 |
| " " " .. 1882 | | 603,402 17 | 13,664 80 | 74,641 51 | 84,374 97 |
| " " " .. 1883 | | 549,433 29 | 5,979 03 | 109,207 21 | 72,707 62 |
| " " " .. 1884 | | 432,336 21 | | 113,276 87 | 90,926 97 |
| " " " .. 1885 | | 463,505 38 | 6,150 21 | 112,670 00 | 91,534 66 |
| " " " .. 1886 | | 215,380 75 | 1,359 00 | 111,660 22 | 69,507 48 |
| " " " .. 1887 | | 1,071,073 87 | 3,828 67 | 109,371 69 | 77,440 80 |
| " " " .. 1888 | | 429,720 94 | 10,740 86 | 110,806 01 | 86,518 97 |
| " " " .. 1889 | | 225,910 21 | 43,803 80 | 113,587 05 | 77,547 77 |
| " " " .. 1890 | | 117,633 22 | 51,648 28 | 109,202 02 | 72,686 19 |
| " " " .. 1891 | | 36,371 03 | 19,767 73 | 107,662 63 | 82,548 30 |
| " " " .. 1892 | | 29,541 21 | 9,008 80 | 104,673 73 | 73,771 87 |
| " " " .. 1893 | | 8,259 94 | 25,103 13 | 104,926 73 | 65,016 84 |
| " " " .. 1894 | | 1,571 78 | 13,430 20 | 102,018 80 | 53,053 71 |
| " " " .. 1895 | | 3,809 35 | 24,245 02 | 90,438 07 | 48,270 94 |
| " " " .. 1896 | | 1,677 67 | 18,768 99 | 87,988 11 | 62,542 64 |
| " " " .. 1897 | | 2,282 35 | 22,283 06 | 88,095 20 | 41,247 81 |
| " " " .. 1898 | | | 34,803 25 | 84,806 54 | 59,571 66 |
| " " " .. 1899 | | | 30,099 84 | 86,110 88 | 56,270 60 |
| " " " .. 1900 | | 18,167 29 | 37,164 84 | 84,888 36 | 59,507 64 |
| " " " .. 1901 | | 224,536 96 | 87,777 43 | 86,889 24 | 72,055 89 |
| " " " .. 1902 | | 303,997 81 | 78,905 37 | 88,048 95 | 69,279 90 |
| " " " .. 1903 | | 315,819 49 | 94,127 21 | 90,684 05 | 72,004 59 |
| " " " .. 1904 | | 555,751 00 | 31,140 58 | 91,115 35 | 85,717 88 |
| " " " .. 1905 | | 890,457 82 | 34,559 42 | 91,928 96 | 111,418 62 |
| " " " .. 1906 | | 715,198 24 | 28,799 66 | 107,932 96 | 78,704 93 |
| " " " .. 1907 | | 480,305 03 | 56,036 47 | 75,031 24 | 53,247 50 |
| " " " .. 1908 | | 806,760 46 | 138,430 19 | 108,101 56 | 78,460 40 |
| " " " .. 1909 | | 255,986 16 | 129,489 99 | 115,934 78 | 88,409 53 |
| " " " .. 1910 | | 168,247 17 | 75,233 28 | 136,783 47 | 77,723 23 |
| Total | | • 28,506,863 19 | 1,358,283 83 | 3,601,239 21 | 3,029,214 65 |

*Total expenditure as above\$ 28,506,863 19
Less expenditure by Imperial Government..... 222,220 00

Agreeing with Public Accounts Balance Sheet, 1910, page 4 . . \$ 28,284,643 19

Original cost of construction, including first enlargement.....\$ 7,693,824 03
Enlargement, including new Welland Canal..... 20,813,039 16

Total expenditure as above..... 28,506,863 19

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—Continued.

WILLIAMSBURG CANALS.

| | Year ending | CAPITAL. | | | | Renewals Chargedable to Income | Staff. | Repairs. |
|--|-------------|--------------------|------------|-----------------|--------------|---|-----------|-----------|
| | | Barrau's Point. | Gadops. | Rapide Flat. | Total. | | | |
| | | | | | | | | |
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation being amount of original construction..... | 1868 | | | | 1,320,655 54 | | 5,745 97 | 6,442 41 |
| Government expenditure since Confederation.. | 1869 | | | | | | 5,769 81 | 5,670 88 |
| " | 1870 | | | | | | 5,573 13 | 6,546 16 |
| " | 1871 | | | | | | 6,382 17 | 5,308 41 |
| " | 1872 | | | | | 1,077 00 | 5,542 94 | 3,230 07 |
| " | 1873 | | | | | | 6,424 49 | 7,347 75 |
| " | 1874 | | | | | | 6,857 19 | 7,395 92 |
| " | 1875 | | | | | | 6,547 62 | 4,110 29 |
| " | 1876 | | | | | | 7,418 39 | 11,690 98 |
| " | 1877 | | | | | | 7,388 08 | 10,053 61 |
| " | 1878 | | | | | | 7,430 11 | 4,449 78 |
| " | 1879 | | | | | | 7,517 20 | 3,549 71 |
| " | 1880 | | | | | | 7,590 15 | 3,999 77 |
| " | 1881 | | | | | | 7,572 35 | 5,020 73 |
| " | 1882 | | | | | | 7,589 44 | 7,447 69 |
| " | 1883 | | | | 13 19 | | 7,423 48 | 7,299 39 |
| " | 1884 | | | | 2,473 44 | | 7,757 04 | 7,349 37 |
| " | 1885 | | 70,764 07 | 32,473 05 | 103,237 12 | | 7,696 67 | 8,198 03 |
| " | 1886 | | 78,014 92 | 71,820 79 | 149,835 71 | | 7,671 54 | 7,847 05 |
| " | 1887 | | 32,862 02 | 82,990 98 | 115,853 00 | | 7,635 54 | 7,904 76 |
| " | 1888 | | 16,628 95 | 53,499 34 | 70,128 29 | 1,613 67 | 7,646 79 | 8,190 13 |
| " | 1889 | | 37,661 15 | 22,206 11 | 59,867 26 | | 7,485 28 | 8,794 61 |
| " | 1890 | | 126,417 42 | 12,660 95 | 139,078 37 | | 8,954 53 | 8,191 69 |
| " | 1891 | 2,853 76 | 172,779 88 | 55,036 96 | 230,670 60 | | 8,678 25 | 7,987 40 |
| " | 1892 | | 218,511 17 | 158,034 15 | 376,545 32 | 797 83 | 9,458 33 | 8,551 32 |
| " | 1893 | | 154,524 01 | 217,669 28 | 372,193 29 | 3,675 00 | 8,676 03 | 8,347 97 |
| " | 1894 | | 223,992 81 | 274,397 42 | 498,390 23 | | 10,230 09 | 7,029 95 |
| " | 1895 | | 118,464 53 | 228,892 70 | 347,357 23 | 13,720 36 | 9,675 09 | 7,371 37 |
| " | 1896 | 4,980 00 | 150,744 16 | 286,396 96 | 442,121 12 | 8,607 04 | 9,588 51 | 9,036 00 |
| " | 1897 | | 262,793 78 | 205,480 55 | 468,274 33 | 3,880 76 | 8,697 54 | 8,210 71 |
| " | 1898 | 231,321 44 | 734,492 07 | 116,072 55 | 1,081,886 06 | | 10,708 66 | 8,032 84 |

1 GEORGE V., A. 1911

STATEMENT showing the amounts expended on Construction, Renewals, &c.—Continued.

STE. ANNE'S LOCK AND CANAL.

| | | | | Year ending. | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|-------|---|----|-----------------|---------------|---|-----------|------------|
| | | | | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation | | | | | 134,456 51 | | | |
| " | since | " | .. | 1868 | | | 778 16 | 432 47 |
| " | " | " | .. | 1869 | | | 1,062 96 | 1,873 51 |
| " | " | " | .. | 1870 | | | 1,136 54 | 1,280 36 |
| " | " | " | .. | 1871 | | | 1,285 84 | 1,539 02 |
| " | " | " | .. | 1872 | | 1,939 46 | 1,106 80 | 1,393 63 |
| " | " | " | .. | 1873 | | 540 11 | 2,199 64 | 1,264 40 |
| " | " | " | .. | 1874 | 12,753 27 | | 2,614 90 | 7,208 63 |
| " | " | " | .. | 1875 | 32,627 71 | | 1,859 20 | 4,506 68 |
| " | " | " | .. | 1876 | 24,935 85 | | 1,952 14 | 4,033 72 |
| " | " | " | .. | 1877 | 30,003 08 | | 1,982 65 | 1,756 93 |
| " | " | " | .. | 1878 | 14,618 85 | | 2,057 32 | 541 95 |
| " | " | " | .. | 1879 | 22,113 02 | | 2,202 03 | 3,259 70 |
| " | " | " | .. | 1880 | 3,054 68 | | 2,152 57 | 1,704 71 |
| " | " | " | .. | 1881 | 69,042 76 | | 2,553 02 | 3,257 92 |
| " | " | " | .. | 1882 | 193,158 36 | | 2,611 30 | 2,343 99 |
| " | " | " | .. | 1883 | 172,959 95 | | 2,569 86 | 3,448 83 |
| " | " | " | .. | 1884 | 142,006 25 | | 2,775 32 | 2,725 49 |
| " | " | " | .. | 1885 | 93,679 57 | | 2,618 60 | 4,042 04 |
| " | " | " | .. | 1886 | 129,681 67 | | 2,611 90 | 5,803 01 |
| " | " | " | .. | 1887 | 45,276 08 | 6,054 10 | 2,537 41 | 1,499 96 |
| " | " | " | .. | 1888 | 18,910 55 | 1,372 59 | 2,505 61 | 1,380 75 |
| " | " | " | .. | 1889 | 24,786 33 | | 2,569 22 | 1,730 79 |
| " | " | " | .. | 1890 | 6,151 14 | | 2,571 04 | 1,525 51 |
| " | " | " | .. | 1891 | | 8,173 69 | 2,505 69 | 1,503 56 |
| " | " | " | .. | 1892 | | 25,471 61 | 2,571 28 | 1,666 21 |
| " | " | " | .. | 1893 | | 6,521 88 | 2,581 08 | 2,800 03 |
| " | " | " | .. | 1894 | | 3,497 56 | 2,640 00 | 2,799 63 |
| " | " | " | .. | 1895 | | 3,694 33 | 2,508 14 | 3,025 91 |
| " | " | " | .. | 1896 | | | 2,495 54 | 4,993 89 |
| " | " | " | .. | 1897 | | | 2,357 51 | 1,688 12 |
| " | " | " | .. | 1898 | | | 1,904 10 | 1,699 44 |
| " | " | " | .. | 1899 | | | 1,920 12 | 1,997 96 |
| " | " | " | .. | 1900 | | | 1,840 51 | 2,679 21 |
| " | " | " | .. | 1901 | | | 1,895 89 | 3,999 02 |
| " | " | " | .. | 1902 | | | 1,994 52 | 3,015 97 |
| " | " | " | .. | 1903 | | 1,984 39 | 2,072 17 | 4,684 42 |
| " | " | " | .. | 1904 | | | 2,292 94 | 2,244 13 |
| " | " | " | .. | 1905 | | | 2,151 01 | 6,091 44 |
| " | " | " | .. | 1906 | | | 2,259 16 | 2,294 86 |
| " | " | " | .. | 1907 | | 2,449 96 | 1,595 62 | 901 47 |
| " | " | " | .. | 1908 | | 2,501 42 | 2,248 29 | 1,693 63 |
| " | " | " | .. | 1909 | | 199 67 | 2,292 19 | 4,290 57 |
| " | " | " | .. | 1910 | | 2,839 76 | 2,267 60 | 2,446 28 |
| Total | | | | | *1,170,215 63 | 66,740 53 | 92,707 39 | 115,069 75 |

* Included in total cost of Ottawa River Works, see page 22.

| | |
|--------------------------------------|------------------------|
| Original Construction | \$ 134,456 51 |
| Enlargement, including new lock..... | 1,035,759 12 |
| | <u>\$ 1,170,215 63</u> |

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c. *Continued.*

CARILLON AND GRENVILLE CANAL

| | | | | Year ending | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|-------|---|--|-------------|---------------|--------------------------------|------------|------------|
| | | | | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Imperial Government | | | | | * | | | |
| Government expenditure prior to Confederation | | | | | 63,053 64 | | | |
| " | since | " | | 1868 | | 19,817 22 | 6,301 88 | 8,911 28 |
| " | " | " | | 1869 | | | 6,549 38 | 10,157 42 |
| " | " | " | | 1870 | | 4,167 96 | 6,617 81 | 9,852 09 |
| " | " | " | | 1871 | | 23,119 37 | 8,676 90 | 8,218 24 |
| " | " | " | | 1872 | 165,257 28 | | 8,324 51 | 17,235 31 |
| " | " | " | | 1873 | 133,199 10 | 3,051 38 | 10,068 28 | 8,781 50 |
| " | " | " | | 1874 | 245,258 38 | | 10,710 88 | 10,605 82 |
| " | " | " | | 1875 | 339,864 76 | | 10,378 57 | 18,520 44 |
| " | " | " | | 1876 | 326,203 16 | | 10,764 38 | 11,475 96 |
| " | " | " | | 1877 | 245,738 04 | | 11,050 27 | 10,304 06 |
| " | " | " | | 1878 | 22,676 20 | | 11,401 30 | 5,082 72 |
| " | " | " | | 1879 | 243,141 24 | | 11,501 22 | 7,629 98 |
| " | " | " | | 1880 | 281,514 27 | | 11,959 14 | 7,625 54 |
| " | " | " | | 1881 | 336,707 53 | | 13,059 18 | 8,076 91 |
| " | " | " | | 1882 | 433,084 39 | | 14,387 49 | 7,582 68 |
| " | " | " | | 1883 | 433,575 10 | | 17,479 58 | 8,310 02 |
| " | " | " | | 1884 | 399,267 16 | | 17,393 91 | 7,918 42 |
| " | " | " | | 1885 | 157,187 72 | | 19,702 30 | 10,429 26 |
| " | " | " | | 1886 | 104,973 24 | 75 00 | 20,597 82 | 9,303 31 |
| " | " | " | | 1887 | 20,747 11 | | 20,011 36 | 19,554 41 |
| " | " | " | | 1888 | 38,996 29 | | 21,531 12 | 10,036 62 |
| " | " | " | | 1889 | 298 17 | | 22,098 88 | 10,135 66 |
| " | " | " | | 1890 | 17 58 | 4,526 61 | 15,896 16 | 7,582 38 |
| " | " | " | | 1891 | | 4,395 25 | 21,230 22 | 10,796 68 |
| " | " | " | | 1892 | 34,585 64 | 15,036 48 | 17,458 69 | 8,620 15 |
| " | " | " | | 1893 | 207 00 | 42,298 74 | 16,762 71 | 10,669 28 |
| " | " | " | | 1894 | 385 55 | 20,034 94 | 14,144 98 | 11,620 09 |
| " | " | " | | 1895 | | 5,963 76 | 15,453 21 | 12,303 25 |
| " | " | " | | 1896 | 3,850 31 | | 13,995 69 | 12,161 10 |
| " | " | " | | 1897 | 1,908 44 | 4,939 20 | 13,780 29 | 11,607 95 |
| " | " | " | | 1898 | 82,663 37 | 5,082 03 | 11,697 81 | 10,993 61 |
| " | " | " | | 1899 | 39,999 37 | | 11,919 27 | 11,478 88 |
| " | " | " | | 1900 | 22,802 27 | 4,476 50 | 13,657 06 | 14,666 71 |
| " | " | " | | 1901 | 4,930 65 | 9,331 95 | 13,342 22 | 13,416 00 |
| " | " | " | | 1902 | | 16,998 69 | 13,725 99 | 19,366 30 |
| " | " | " | | 1903 | | 15,992 52 | 14,348 17 | 17,766 28 |
| " | " | " | | 1904 | | 9,150 07 | 16,224 94 | 17,262 29 |
| " | " | " | | 1905 | | 8,715 46 | 15,858 19 | 19,977 19 |
| " | " | " | | 1906 | | 24,179 33 | 18,232 71 | 10,924 72 |
| " | " | " | | 1907 | | 9,393 38 | 16,749 03 | 7,036 40 |
| " | " | " | | 1908 | | 1,387 35 | 23,019 45 | 9,775 35 |
| " | " | " | | 1909 | | 68,597 35 | 23,085 54 | 10,758 01 |
| " | " | " | | 1910 | | 10,410 09 | 23,512 72 | 11,925 28 |
| Total..... | | | | | †4,182,092 96 | 331,140 63 | 634,661 21 | 477,455 55 |

* Expenditure not given—records relating to same were kept in Ordnance Office at Montreal and were destroyed by fire in 1852.

† Included in total cost of Ottawa River Works, see page 22. Cost of enlargement, \$4,119,039.32.

W. C. LITTLE,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—Continued.
CULBUTE LOCK AND DAM.

| | | | | Year ending. | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|--|---|---|---|-----------------|-------------|---|-----------|----------|
| | | | | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure since Confederation.. | | | | 1868 | | | | |
| " | " | " | " | 1869 | | | | |
| " | " | " | " | 1870 | | | | |
| " | " | " | " | 1871 | | | | |
| " | " | " | " | 1872 | | | | |
| " | " | " | " | 1873 | | 835 53 | | |
| " | " | " | " | 1874 | | 38,388 99 | | |
| " | " | " | " | 1875 | 63,659 29 | | | |
| " | " | " | " | 1876 | 76,842 44 | | | |
| " | " | " | " | 1877 | 56,081 87 | | | |
| " | " | " | " | 1878 | 5,933 53 | | | |
| " | " | " | " | 1879 | 20,694 19 | | | |
| " | " | " | " | 1880 | 16,688 20 | | 202 50 | 259 31 |
| " | " | " | " | 1881 | 4,721 62 | | 962 85 | |
| " | " | " | " | 1882 | 29,567 15 | | 790 00 | 162 33 |
| " | " | " | " | 1883 | 14,249 60 | | 695 00 | 288 99 |
| " | " | " | " | 1884 | 8,151 16 | | 733 50 | |
| " | " | " | " | 1885 | 19,071 76 | | 730 00 | 572 75 |
| " | " | " | " | 1886 | 26,385 27 | | 730 00 | 2,396 14 |
| " | " | " | " | 1887 | 7,760 88 | | 730 00 | 967 33 |
| " | " | " | " | 1888 | 7,573 99 | | 739 50 | 730 60 |
| " | " | " | " | 1889 | 17,112 01 | | 1,050 00 | 116 53 |
| " | " | " | " | 1890 | 2,818 35 | | 747 83 | |
| " | " | " | " | 1891 | 2,183 15 | 9,122 05 | 745 25 | 499 91 |
| " | " | " | " | 1892 | | 1,546 25 | 736 00 | |
| " | " | " | " | 1893 | | 1,420 65 | 749 00 | 13 55 |
| " | " | " | " | 1894 | | 2,540 14 | 730 00 | 494 43 |
| " | " | " | " | 1895 | | 1,475 26 | 436 05 | 434 28 |
| " | " | " | " | 1896 | | | | |
| " | " | " | " | 1897 | | | | |
| " | " | " | " | 1898 | | | | 100 00 |
| " | " | " | " | 1899 | | | | |
| " | " | " | " | 1900 | 3,085 00 | | | |
| " | " | " | " | 1901 | 197 00 | | | |
| " | " | " | " | 1902 | | 1,135 00 | | |
| " | " | " | " | 1903 | | | | |
| " | " | " | " | 1904 | | 2,204 50 | | |
| " | " | " | " | 1905 | | 2,255 00 | | |
| " | " | " | " | 1906 | | | | |
| " | " | " | " | 1907 | | | | |
| " | " | " | " | 1908 | | | | |
| " | " | " | " | 1909 | | | | |
| " | " | " | " | 1910 | | | | |
| Total..... | | | | | *382,776 46 | 60,923 37 | 11,507 48 | 7,036 15 |

* Included in total cost of Ottawa River Works, see page 22.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Continued.*

RIDEAU CANAL.

| | Year ending. | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|-----------------|---------------|---|--------------|--------------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Imperial Government. | | 3,911,701 47 | | | |
| Government expenditure prior to Confederation | | 153,062 60 | | | |
| " since | 1868 | 166 50 | 7,298 12 | 18,397 28 | 16,475 21 |
| " | 1869 | | | 19,250 71 | 13,140 77 |
| " | 1870 | | 13 16 | 20,022 37 | 19,469 33 |
| " | 1871 | | 11,732 98 | 22,814 58 | 18,120 52 |
| " | 1872 | | 4,967 50 | 22,139 48 | 14,005 32 |
| " | 1873 | | 18,070 97 | 22,841 51 | 26,074 49 |
| " | 1874 | | 5,793 16 | 26,815 44 | 22,957 40 |
| " | 1875 | 9,310 85 | | 26,553 37 | 19,699 81 |
| " | 1876 | 2,163 96 | | 26,430 77 | 14,428 25 |
| " | 1877 | 214 11 | | 25,959 56 | 14,198 18 |
| " | 1878 | | | 26,651 51 | 11,034 22 |
| " | 1879 | 7,703 88 | | 26,042 52 | 7,134 55 |
| " | 1880 | | | 26,463 88 | 11,434 05 |
| " | 1881 | | 133 50 | 26,024 71 | 8,627 00 |
| " | 1882 | | | 26,915 29 | 13,860 28 |
| " | 1883 | | 70 65 | 27 322 81 | 23,524 84 |
| " | 1884 | | 4,597 50 | 26,938 95 | 19,245 02 |
| " | 1885 | | 2,098 76 | 26,971 32 | 18,189 55 |
| " | 1886 | | 550 00 | 27,045 95 | 35,648 04 |
| " | 1887 | | 20,823 96 | 29,440 46 | 18,565 34 |
| " | 1888 | | 18,889 48 | 33,458 83 | 25,478 87 |
| " | 1889 | | 6,665 22 | 33,801 77 | 18,106 36 |
| " | 1890 | | 21,124 10 | 34,270 57 | 18,025 21 |
| " | 1891 | | 20,967 25 | 34,641 98 | 21,537 56 |
| " | 1892 | | 31,363 23 | 35,500 82 | 21,507 16 |
| " | 1893 | | 24,274 71 | 35,022 49 | 18,789 50 |
| " | 1894 | | 14,485 11 | 34,943 35 | 16,939 47 |
| " | 1895 | | 31,559 48 | 33,827 08 | 19,897 32 |
| " | 1896 | | 21,452 29 | 34,052 77 | 30,196 38 |
| " | 1897 | | 19,079 11 | 31,461 55 | 29,535 94 |
| " | 1898 | | 13,608 39 | 30,759 05 | 26,599 93 |
| " | 1899 | | 700 29 | 30,751 20 | 28,199 49 |
| " | 1900 | | 11,780 41 | 30,623 27 | 30,237 09 |
| " | 1901 | | | 31,334 40 | 33,791 17 |
| " | 1902 | | 8,894 40 | 32,193 66 | 33,959 86 |
| " | 1903 | | 16,235 13 | 34,595 31 | 36,424 23 |
| " | 1904 | | 13,525 04 | 39,127 96 | 38,496 78 |
| " | 1905 | 1,565 84 | 14,513 35 | 40,838 81 | 49,790 55 |
| " | 1906 | | 5,272 90 | 41,819 77 | 54,495 63 |
| " | 1907 | | 14,322 03 | 30,667 34 | 44,627 82 |
| " | 1908 | | 42,903 03 | 44,875 16 | 55,090 45 |
| " | 1909 | | 19,989 52 | 44,911 60 | 53,880 51 |
| " | 1910 | | 9,225 73 | 48,324 13 | 95,188 97 |
| Total. | | *4,085,889 21 | 456,980 46 | 1,322,845 34 | 1,146,628 42 |

* Included in total cost of Ottawa River Works. See page 22.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.W. C. LITTLE,
Accountant.

1 GEORGE V., A. 1911

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Continued.*

OTTAWA RIVER WORKS.

| | | |
|---|-----------------|-----------------|
| Ste. Anne's Lock, page 18 | \$ 1,170,215 63 | |
| Carillon and Grenville Canal, page 19 | 4,182,092 96 | |
| Culbute Canal, page 20 | 382,776 46 | |
| Rideau Canal, page 21 | \$ 4,085,889 21 | |
| Less expenditure by Imperial Government | 3,911,701 47 | |
| | | 174,187 74 |
| Total Ottawa River Works (Capital) | \$ 5,909 272 79 | |
| Add expenditure on slides and booms prior to confederation | \$ 719,247 13 | |
| " " " since " | 7,243 60 | |
| " on Chats Canals prior to confederation | 482,950 81 | |
| " in 1881, charged to Miscellaneous, see page 229, part ii, Public Accounts | 1,136 84 | |
| Add amount transferred, see page xxxvi, Pub. Accounts Bal. Sheet, 1881. | 233,555 85 | |
| | | 1,444,134 23 |
| | | \$ 7,353,407 02 |
| Less expenditure prior to Confederation, transferred to Income Account | \$ 320,618 28 | |
| Less expenditure in 1872, on Carillon and Grenville Canal, as shown in Publics Accounts Balance Sheet, page xx, under Miscellaneous. | 165,257 28 | |
| | | 485,875 56 |
| Agreeing, less outstanding cheques, with Balance Sheet, Public Accounts, 1910, page 4 | \$ 6,867,531 46 | |

W. C. LITTLE,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Continued.*

ST. OURS LOCK.

| | Year ending. | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|-----------------|-------------|---|-----------|-----------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation | | 121,537 65 | | | |
| " since " .. 1868 | | | | 1,532 75 | 753 74 |
| " " " .. 1869 | | | | 1,755 15 | 1,399 18 |
| " " " .. 1870 | | | | 1,458 09 | 1,006 22 |
| " " " .. 1871 | | | | 1,414 48 | 1,210 98 |
| " " " .. 1872 | | | | 1,565 80 | 1 263 19 |
| " " " .. 1873 | | | | 2,076 50 | 1,575 10 |
| " " " .. 1874 | | | | 2,219 13 | 2,363 42 |
| " " " .. 1875 | | | | 1,362 22 | 1,245 69 |
| " " " .. 1876 | | | | 1,403 92 | 1,601 71 |
| " " " .. 1877 | | | | 1,533 40 | 750 80 |
| " " " .. 1878 | | | | 1,556 65 | 283 77 |
| " " " .. 1879 | | | | 1,581 55 | 456 07 |
| " " " .. 1880 | | | | 1,614 01 | 705 54 |
| " " " .. 1881 | | | | 1,741 97 | 1,299 77 |
| " " " .. 1882 | | | | 2,002 71 | 1,902 41 |
| " " " .. 1883 | | | 17,230 32 | 2,361 65 | 2,188 08 |
| " " " .. 1884 | | | 5,279 17 | 2,315 37 | 1,494 99 |
| " " " .. 1885 | | | 4,700 64 | 2,271 57 | 3,652 63 |
| " " " .. 1886 | | | | 2,311 70 | 4,143 47 |
| " " " .. 1887 | | | | 2,175 37 | 5,864 78 |
| " " " .. 1888 | | | | 2,216 04 | 2,801 17 |
| " " " .. 1889 | | | 17,964 45 | 2,421 14 | 2,002 63 |
| " " " .. 1890 | | | 24,571 96 | 2,138 40 | 1,935 44 |
| " " " .. 1891 | | | 21,696 74 | 2,011 08 | 4,460 16 |
| " " " .. 1892 | | | 3,585 34 | 2,168 44 | 1,944 33 |
| " " " .. 1893 | | | | 2,136 66 | 1,994 34 |
| " " " .. 1894 | | | | 2,216 68 | 924 55 |
| " " " .. 1895 | | | | 2,161 63 | 915 50 |
| " " " .. 1896 | | | | 2,094 91 | 1,678 49 |
| " " " .. 1897 | | | | 2,135 60 | 707 06 |
| " " " .. 1898 | | | | 2,049 67 | 692 04 |
| " " " .. 1899 | | | | 2,244 12 | 1,494 93 |
| " " " .. 1900 | | | 1,596 88 | 2,181 43 | 2,681 10 |
| " " " .. 1901 | | | 3,610 06 | 2,128 25 | 1,681 44 |
| " " " .. 1902 | | | 15,549 27 | 2,262 39 | 984 36 |
| " " " .. 1903 | | | 9,344 89 | 2,288 63 | 1,671 83 |
| " " " .. 1904 | | | 7,984 41 | 2,334 67 | 1,690 61 |
| " " " .. 1905 | | | 14,900 90 | 2,479 66 | 1,716 35 |
| " " " .. 1906 | | | 7,307 39 | 2,582 95 | 3,872 75 |
| " " " .. 1907 | | | 4,260 00 | 2,064 62 | 1,142 79 |
| " " " .. 1908 | | | 3,338 79 | 2,894 76 | 2,121 43 |
| " " " .. 1909 | | | | 2,294 78 | 3,693 19 |
| " " " .. 1910 | | | 1,925 08 | 4,137 64 | 1,762 66 |
| Total .. | | *121,537 65 | 164,786 29 | 89,898 14 | 79,720 69 |

* Included in the total cost of Chambly Canal and Richelieu River, *see* page 24.W. C. LITTLE,
Accountant.DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

1 GEORGE V., A. 1911

STATEMENT showing the amounts expended on Construction, Renewals, &c.—Continued.
CHAMBLY CANAL.

| | Year ending. | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|--|-----------------|---------------|---|------------|------------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation | | 634,711 76 | | | |
| " since " | 1868 | | | 8,312 90 | 9,355 70 |
| " " " | 1869 | | | 8,437 22 | 13,120 97 |
| " " " | 1870 | | | 8,934 41 | 20,180 73 |
| " " " | 1871 | | 2,839 85 | 10,214 71 | 22,426 33 |
| " " " | 1872 | | 1,906 40 | 9,628 50 | 22,327 99 |
| " " " | 1873 | | 759 00 | 10,390 44 | 11,789 27 |
| " " " | 1874 | | 2,810 00 | 11,675 67 | 16,427 19 |
| " " " | 1875 | 2,415 00 | | 12,201 99 | 16,306 91 |
| " " " | 1876 | | | 10,593 14 | 13,273 56 |
| " " " | 1877 | 80 00 | | 10,281 78 | 10,111 32 |
| " " " | 1878 | | | 10,413 99 | 6,022 96 |
| " " " | 1879 | | | 11,301 53 | 8,809 77 |
| " " " | 1880 | | | 11,516 22 | 12,377 74 |
| " " " | 1881 | | | 13,950 47 | 20,705 17 |
| " " " | 1882 | | 31,796 41 | 16,686 78 | 16,843 60 |
| " " " | 1883 | | 21,332 36 | 15,904 38 | 15,182 24 |
| " " " | 1884 | | 41,640 77 | 18,448 85 | 12,003 34 |
| " " " | 1885 | | 21,049 23 | 18,378 55 | 13,046 95 |
| " " " | 1886 | | 14,547 27 | 19,501 28 | 11,999 77 |
| " " " | 1887 | | 17,911 17 | 19,053 62 | 20,071 37 |
| " " " | 1888 | | 65,536 64 | 20,073 60 | 11,823 74 |
| " " " | 1889 | | 51,437 87 | 19,679 22 | 19,392 18 |
| " " " | 1890 | | 23,221 48 | 19,655 38 | 14,399 93 |
| " " " | 1891 | | 43,344 41 | 19,204 76 | 11,399 93 |
| " " " | 1892 | | 38,353 99 | 19,665 22 | 12,976 48 |
| " " " | 1893 | | 21,127 65 | 19,310 29 | 12,451 03 |
| " " " | 1894 | | 8,567 78 | 19,040 93 | 11,779 12 |
| " " " | 1895 | | 6,147 63 | 19,325 49 | 11,920 74 |
| " " " | 1896 | | 3,694 63 | 19,349 65 | 11,801 12 |
| " " " | 1897 | | 12,665 88 | 18,754 17 | 13,128 55 |
| " " " | 1898 | | 13,184 68 | 17,992 90 | 12,466 51 |
| " " " | 1899 | | 15,255 42 | 18,336 50 | 11,997 51 |
| " " " | 1900 | | 5,448 88 | 18,397 58 | 13,995 00 |
| " " " | 1901 | | 1,195 09 | 18,529 48 | 17,572 35 |
| " " " | 1902 | | 19,132 80 | 18,832 25 | 17,313 02 |
| " " " | 1903 | | 8,977 43 | 19,286 10 | 21,745 65 |
| " " " | 1904 | | 26,701 59 | 21,544 69 | 25,656 00 |
| " " " | 1905 | | 33,066 50 | 26,970 79 | 19,896 57 |
| " " " | 1906 | | 26,192 72 | 26,039 53 | 25,173 48 |
| " " " | 1907 | | 29,953 80 | 19,916 33 | 22,508 88 |
| " " " | 1908 | 157 90 | 34,264 31 | 28,375 21 | 30,627 72 |
| " " " | 1909 | 13,307 02 | 35,784 54 | 28,440 40 | 24,389 29 |
| " " " | 1910 | 30,479 41 | 8,207 00 | 29,198 76 | 22,825 53 |
| | | 681,151 09 | | | |
| Less proceeds of sale of piece of land in 1898.. | | 150 00 | | | |
| Total | | *681,001 09 | 688,055 18 | 741,745 76 | 689,623 21 |
| Chambly Canal and River Richelieu. | | | | | |
| Chambly Canal, as above..... | | | \$ 681,001 09 | | |
| St. Ours Lock, see page 23. | | | 121,537 65 | | |
| Less amounts deducted at Confederation, see Public | | | | | |
| Accounts, 1868, part I, page 9, | | | \$ 802,538 74 | | |
| Government expenditure prior to Confederation, | | | | | |
| Chambly Canal, as above..... | | \$ 634,711 76 | | | |
| St. Ours Lock, see page 23..... | | 121,537 65 | | | |
| | | | \$ 756,249 41 | | |
| Returned as an asset in Public Accounts, 1868.. | | 433,807 83 | | | |
| | | | 322,441 58 | | |
| Agreeing with Public Accounts, 1910, page 4..... | | | \$ 449,617 75 | | |
| DEPARTMENT OF RAILWAYS AND CANALS, | | | W. C. LITTLE, | | |
| OTTAWA, July 23, 1910. | | | Accountant. | | |

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—Continued.

MURRAY CANAL.

| | | | | Year ending. | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|-------|---|----|-----------------|---------------|---|------------|-----------|
| | | | | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation | | | | 1868 | | 400 00 | | |
| " | since | " | .. | 1869 | | | | |
| " | " | " | .. | 1870 | | | | |
| " | " | " | .. | 1871 | | | | |
| " | " | " | .. | 1872 | | | | |
| " | " | " | .. | 1873 | | | | |
| " | " | " | .. | 1874 | | | | |
| " | " | " | .. | 1875 | | | | |
| " | " | " | .. | 1876 | | | | |
| " | " | " | .. | 1877 | | | | |
| " | " | " | .. | 1878 | | | | |
| " | " | " | .. | 1879 | | | | |
| " | " | " | .. | 1880 | | | | |
| " | " | " | .. | 1881 | | | | |
| " | " | " | .. | 1882 | 7,135 63 | | | |
| " | " | " | .. | 1883 | 84,071 68 | | | |
| " | " | " | .. | 1884 | 118,187 43 | | | |
| " | " | " | .. | 1885 | 148,902 66 | | | |
| " | " | " | .. | 1886 | 179,704 52 | | | |
| " | " | " | .. | 1887 | 142,563 66 | | | |
| " | " | " | .. | 1888 | 146,754 37 | | | |
| " | " | " | .. | 1889 | 215 326 46 | | | |
| " | " | " | .. | 1890 | 106,760 35 | | 494 31 | |
| " | " | " | .. | 1891 | 61,260 49 | | 5,137 03 | 173 53 |
| " | " | " | .. | 1892 | 5,964 22 | | 5,803 48 | 3,505 15 |
| " | " | " | .. | 1893 | 30,838 79 | | 5,499 62 | 5,341 34 |
| " | " | " | .. | 1894 | | | 5,667 52 | 5,295 57 |
| " | " | " | .. | 1895 | | | 5,354 97 | 5,063 49 |
| " | " | " | .. | 1896 | | | 5,409 10 | 5,410 33 |
| " | " | " | .. | 1897 | | | 5,526 87 | 3,966 41 |
| " | " | " | .. | 1898 | | | 5,799 94 | 4,710 23 |
| " | " | " | .. | 1899 | | | 5,073 70 | 3,533 68 |
| " | " | " | .. | 1900 | | | 5,613 83 | 2,777 60 |
| " | " | " | .. | 1901 | | | 5,175 74 | 1,138 15 |
| " | " | " | .. | 1902 | | | 5,254 51 | 6,377 19 |
| " | " | " | .. | 1903 | 500 00 | | 5,757 00 | 4,627 70 |
| " | " | " | .. | 1904 | 750 00 | 2,521 13 | 5,291 43 | 6,075 94 |
| " | " | " | .. | 1905 | 100 00 | 740 45 | 5,346 62 | 4,452 68 |
| " | " | " | .. | 1906 | | 293 75 | 5,183 61 | 2,840 91 |
| " | " | " | .. | 1907 | | 10,423 00 | 2,788 14 | 1,710 55 |
| " | " | " | .. | 1908 | | 37,334 70 | 4,244 42 | 2,953 23 |
| " | " | " | .. | 1909 | 126 45 | 20,250 61 | 4,720 09 | 3,374 82 |
| " | " | " | .. | 1910 | | | 4,378 74 | 2,674 57 |
| Total..... | | | | | *1,248,946 71 | 71,963 64 | 103,520 67 | 76,003 07 |

Agreeing with Public Accounts Balance Sheet, 1910, page 4.

W. C. LITTLE,
Accountant.DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

1 GEORGE V., A. 1911

STATEMENT showing the amounts expended on Construction, Renewals, &c. *Continued*

TRENT CANAL.

| | Year ending | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|-------------|---------------|--------------------------------|------------|------------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation | | 309,371 31 | | | |
| " " " 1868 | 1868 | | | | |
| " " " 1869 | 1869 | | | | |
| " " " 1870 | 1870 | | | | |
| " " " 1871 | 1871 | | | | |
| " " " 1872 | 1872 | | | | |
| " " " 1873 | 1873 | | | | |
| " " " 1874 | 1874 | | | | |
| " " " 1875 | 1875 | | | | |
| " " " 1876 | 1876 | | | | |
| " " " 1877 | 1877 | | | | |
| " " " 1878 | 1878 | | | | |
| " " " 1879 | 1879 | | | | |
| " " " 1880 | 1880 | 561 50 | | 1,188 92 | 3,568 89 |
| " " " 1881 | 1881 | | | 2,489 93 | 2,233 50 |
| " " " 1882 | 1882 | | 5,836 51 | 2,011 92 | 3,115 50 |
| " " " 1883 | 1883 | 40,767 16 | 9,303 66 | 2,235 50 | 3,047 42 |
| " " " 1884 | 1884 | 120,393 91 | 6,198 57 | 2,208 64 | 5,264 35 |
| " " " 1885 | 1885 | 121,382 84 | | 3,303 87 | 4,653 50 |
| " " " 1886 | 1886 | 75,103 30 | | 1,639 75 | 5,917 88 |
| " " " 1887 | 1887 | 179,541 63 | | 1,938 08 | 6,008 88 |
| " " " 1888 | 1888 | 114,879 35 | | 1,770 29 | 5,151 42 |
| " " " 1889 | 1889 | 47,592 13 | 29,677 92 | 3,242 05 | 5,935 94 |
| " " " 1890 | 1890 | 58,644 50 | 11,522 65 | 3,450 99 | 730 55 |
| " " " 1891 | 1891 | 9,826 49 | 3,164 81 | 3,803 66 | 4,888 98 |
| " " " 1892 | 1892 | 4,457 28 | 6,506 97 | 3,695 85 | 4,721 85 |
| " " " 1893 | 1893 | 5,962 47 | 10,838 90 | 3,739 86 | 2,087 17 |
| " " " 1894 | 1894 | 3,412 32 | 20,403 93 | 3,785 47 | 4,988 59 |
| " " " 1895 | 1895 | 53,907 70 | 21,143 41 | 4,184 18 | 3,374 49 |
| " " " 1896 | 1896 | 392,976 08 | 6,185 75 | 4,349 34 | 3,329 97 |
| " " " 1897 | 1897 | 486,575 70 | 13,880 37 | 4,965 39 | 3,497 90 |
| " " " 1898 | 1898 | 351,273 31 | 8,991 54 | 5,034 60 | 4,998 80 |
| " " " 1899 | 1899 | 166,611 49 | 6,179 79 | 5,048 72 | 6,454 49 |
| " " " 1900 | 1900 | 334,583 01 | 8,043 39 | 5,131 52 | 9,989 26 |
| " " " 1901 | 1901 | 284,503 89 | 10,494 82 | 5,254 51 | 13,075 89 |
| " " " 1902 | 1902 | 449,075 45 | 26,165 93 | 5,575 52 | 14,984 88 |
| " " " 1903 | 1903 | 523,950 74 | 18,548 58 | 6,993 25 | 10,791 15 |
| " " " 1904 | 1904 | 489,038 44 | 21,228 55 | 7,237 05 | 21,179 12 |
| " " " 1905 | 1905 | 333,261 75 | 36,853 28 | 12,071 88 | 26,056 78 |
| " " " 1906 | 1906 | 319,789 49 | 26,030 36 | 17,440 68 | 33,398 85 |
| " " " 1907 | 1907 | 153,045 42 | 35,360 10 | 19,229 25 | 36,516 47 |
| " " " 1908 | 1908 | 343,176 05 | 96,315 87 | 32,826 38 | 33,382 94 |
| " " " 1909 | 1909 | 1,099,836 38 | 80,517 65 | 32,028 57 | 44,849 83 |
| " " " 1910 | 1910 | 1,000,000 00 | 59,483 51 | 36,800 42 | 54,206 13 |
| Total | | *7,873,501 09 | 578,876 82 | 244,676 04 | 387,401 37 |

*Total expenditure on Capital Account as above..... \$7,873,501 09
Less—Expenditure prior to Confederation:.. \$ 309,371 31
" Year 1880..... 561 50
309,932 81
Agreeing with Public Accounts Balance Sheet, 1910, page 4.\$7,563,568 28

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Continued.*

TAY CANAL.

| | Year ending. | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|-----------------|-------------|---|---------|----------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure since Confederation. | 1868 | | | | |
| " " " | 1869 | | | | |
| " " " | 1870 | | | | |
| " " " | 1871 | | | | |
| " " " | 1872 | | | | |
| " " " | 1873 | | | | |
| " " " | 1874 | | | | |
| " " " | 1875 | | | | |
| " " " | 1876 | | | | |
| " " " | 1877 | | | | |
| " " " | 1878 | | | | |
| " " " | 1879 | | | | |
| " " " | 1880 | | | | |
| " " " | 1881 | | | | |
| " " " | 1882 | | 748 65 | | |
| " " " | 1883 | 4,831 80 | | | |
| " " " | 1884 | 50,878 12 | | | |
| " " " | 1885 | 92,473 97 | | | |
| " " " | 1886 | 65,561 51 | | | |
| " " " | 1887 | 49,617 92 | | | |
| " " " | 1888 | 54,166 57 | | | |
| " " " | 1889 | 89,486 18 | | | |
| " " " | 1890 | 22,226 23 | | * | * |
| " " " | 1891 | 17,114 78 | | * | * |
| " " " | 1892 | 29,771 65 | | * | * |
| " " " | 1893 | | | * | * |
| " " " | 1894 | | | * | * |
| " " " | 1895 | | | * | * |
| " " " | 1896 | | | * | * |
| " " " | 1897 | 10,720 50 | | * | * |
| " " " | 1898 | | | * | * |
| " " " | 1899 | | | * | * |
| " " " | 1900 | 2,750 00 | | * | * |
| " " " | 1901 | | | * | * |
| " " " | 1902 | | | * | * |
| " " " | 1903 | | | * | * |
| " " " | 1904 | | | * | * |
| " " " | 1905 | | | * | * |
| " " " | 1906 | | | * | * |
| " " " | 1907 | | | * | * |
| " " " | 1908 | | | * | * |
| " " " | 1909 | | | * | * |
| " " " | 1910 | | | * | * |
| Total. | | +489,599 23 | 748 65 | * | * |

* Included in Rideau Canal since 1890.

† Agreeing with Public Accounts 1910, page 4.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

STATEMENT showing the amounts expended on Construction, Renewals, &c.—Continued.

SAULT STE. MARIE CANAL.

| | Year ending. | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|-----------------|---------------|---|------------|------------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure since Confederation. | 1868 | ..... | ..... | ..... | ..... |
| " | 1869 | ..... | ..... | ..... | ..... |
| " | 1870 | ..... | ..... | ..... | ..... |
| " | 1871 | ..... | ..... | ..... | ..... |
| " | 1872 | ..... | 949 35 | ..... | ..... |
| " | 1873 | ..... | ..... | ..... | ..... |
| " | 1874 | ..... | ..... | ..... | ..... |
| " | 1875 | ..... | ..... | ..... | ..... |
| " | 1876 | ..... | ..... | ..... | ..... |
| " | 1877 | ..... | ..... | ..... | ..... |
| " | 1878 | ..... | ..... | ..... | ..... |
| " | 1879 | ..... | ..... | ..... | ..... |
| " | 1880 | ..... | ..... | ..... | ..... |
| " | 1881 | ..... | ..... | ..... | ..... |
| " | 1882 | ..... | ..... | ..... | ..... |
| " | 1883 | ..... | ..... | ..... | ..... |
| " | 1884 | ..... | ..... | ..... | ..... |
| " | 1885 | ..... | ..... | ..... | ..... |
| " | 1886 | ..... | ..... | ..... | ..... |
| " | 1887 | ..... | ..... | ..... | ..... |
| " | 1888 | 8,145 06 | ..... | ..... | ..... |
| " | 1889 | 34,018 95 | ..... | ..... | ..... |
| " | 1890 | 176,568 55 | ..... | ..... | ..... |
| " | 1891 | 325,336 33 | ..... | ..... | ..... |
| " | 1892 | 341,474 31 | ..... | ..... | ..... |
| " | 1893 | 589,801 25 | ..... | ..... | ..... |
| " | 1894 | 1,316,529 29 | ..... | ..... | ..... |
| " | 1895 | 466,151 50 | ..... | 3,432 73 | ..... |
| " | 1896 | 189,986 59 | ..... | 16,074 70 | 2,650 17 |
| " | 1897 | 209,561 82 | ..... | 15,381 59 | 7,671 79 |
| " | 1898 | 21,004 56 | ..... | 14,389 92 | 8,172 09 |
| " | 1899 | 63,935 48 | ..... | 13,840 24 | 6,564 40 |
| " | 1900 | 27,157 98 | ..... | 13,901 40 | 13,219 87 |
| " | 1901 | 323,353 93 | 48 39 | 13,730 93 | 10,289 18 |
| " | 1902 | 122,505 73 | ..... | 15,920 80 | 14,839 71 |
| " | 1903 | 65,933 43 | ..... | 16,077 22 | 10,855 70 |
| " | 1904 | 32,029 54 | ..... | 14,653 35 | 9,491 44 |
| " | 1905 | 110,181 69 | ..... | 15,681 55 | 14,776 33 |
| " | 1906 | 120,000 00 | ..... | 15,878 11 | 20,086 15 |
| " | 1907 | 95,504 63 | ..... | 12,290 94 | 11,520 53 |
| " | 1908 | 140,433 22 | ..... | 20,345 38 | 23,206 00 |
| " | 1909 | 42,109 63 | 11,453 28 | 15,231 79 | 16,462 29 |
| " | 1910 | 46,809 13 | 147,147 52 | 18,976 64 | 20,300 77 |
| Total | | *4,868,532 60 | 159,598 54 | 235,807 29 | 190,106 42 |

* Agreeing with Public Accounts, 1910, page 4.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

STATEMENT showing the amounts expended on Construction, Renewals, &c.—*Continued.*

SOULANGES CANAL.

| | | | | Year ending. | Capital. | Renewals Chargeable to Income. | Staff. | Repairs. |
|---|-------|---|---|-----------------|---------------|---|------------|------------|
| | | | | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation | | | | 1868 | | | | |
| " | since | " | " | 1869 | | | | |
| " | " | " | " | 1870 | | | | |
| " | " | " | " | 1871 | | | | |
| " | " | " | " | 1872 | | | | |
| " | " | " | " | 1873 | | | | |
| " | " | " | " | 1874 | | | | |
| " | " | " | " | 1875 | | | | |
| " | " | " | " | 1876 | | | | |
| " | " | " | " | 1877 | | | | |
| " | " | " | " | 1878 | | | | |
| " | " | " | " | 1879 | | | | |
| " | " | " | " | 1880 | | | | |
| " | " | " | " | 1881 | | | | |
| " | " | " | " | 1882 | | | | |
| " | " | " | " | 1883 | | | | |
| " | " | " | " | 1884 | | | | |
| " | " | " | " | 1885 | | | | |
| " | " | " | " | 1886 | | | | |
| " | " | " | " | 1887 | | | | |
| " | " | " | " | 1888 | | | | |
| " | " | " | " | 1889 | | | | |
| " | " | " | " | 1890 | | | | |
| " | " | " | " | 1891 | | | | |
| " | " | " | " | 1892 | 54,235 76 | | | |
| " | " | " | " | 1893 | 210,336 24 | | | |
| " | " | " | " | 1894 | 723,380 95 | | | |
| " | " | " | " | 1895 | 752,016 53 | | | |
| " | " | " | " | 1896 | 535,939 07 | | | |
| " | " | " | " | 1897 | 363,126 06 | | | |
| " | " | " | " | 1898 | 1,016,401 00 | | | |
| " | " | " | " | 1899 | 1,442,824 22 | | | |
| " | " | " | " | 1900 | 693,806 24 | | 6,711 84 | 5,000 00 |
| " | " | " | " | 1901 | 462,626 36 | 115 00 | 25,154 78 | 5,888 77 |
| " | " | " | " | 1902 | 235,021 79 | | 22,672 50 | 2,267 13 |
| " | " | " | " | 1903 | 248,929 10 | | 31,987 06 | 10,362 23 |
| " | " | " | " | 1904 | 113,328 45 | 15,608 69 | 25,235 25 | 39,382 01 |
| " | " | " | " | 1905 | 34,202 71 | 30,406 25 | 25,432 49 | 21,174 84 |
| " | " | " | " | 1906 | 5,000 22 | 16,033 79 | 24,817 37 | 17,096 33 |
| " | " | " | " | 1907 | 13,508 88 | 3,216 29 | 19,964 04 | 15,604 71 |
| " | " | " | " | 1908 | 50,634 01 | 4,245 18 | 28,988 36 | 35,687 11 |
| " | " | " | " | 1909 | 17,795 79 | 12,363 78 | 32,324 20 | 34,802 37 |
| " | " | " | " | 1910 | 153,022 23 | 2,299 93 | 32,851 69 | 46,287 16 |
| Total..... | | | | | *7,126,135 61 | 84,288 91 | 276,139 58 | 233,552 66 |

* Included in total cost of St. Lawrence River and Canals, see page 11.

W. C. LITTLE,
Accountant.DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

1 GEORGE V., A. 1911

STATEMENT showing amount expended on Construction and Enlargement of Canals, to
March 31, 1910.

| Canal. | Construction. | Enlargement. | Total. |
|---|---------------|---------------|---------------|
| | \$ cts. | \$ cts. | \$ cts. |
| St. Peter's..... | 648,547 14 | | 648,547 14 |
| Lachine | 2,589,532 85 | 9,786,178 93 | 12,375,711 78 |
| Beauharnois | 1,636,690 26 | | 1,636,690 26 |
| St. Lawrence River and Canals.. | 18,442 85 | 3,451,470 56 | 3,469,913 41 |
| Lake St. Louis | | 298,176 11 | 298,176 11 |
| Lake St. Francis.. | | 75,906 71 | 75,906 71 |
| Cornwall | 1,945,624 73 | 5,289,142 41 | 7,234,767 14 |
| Williamsburg { Farran's Point | | 877,090 57 | |
| Galops. | | 6,118,927 32 | |
| Rapide Plat | | 2,158,212 00 | 10,485,611 69 |
| Williamsburg | 1,320,655 54 | 10,696 26 | |
| Welland. | 7,693,824 03 | 20,813,039 16 | 28,506,863 19 |
| Ste. Anne's.. | 134,456 51 | 1,035,759 12 | 1,170,215 63 |
| *Carillon and Grenville.. | 63,053 64 | 4,119,039 32 | 4,182,092 96 |
| Culbute. | 382,776 46 | | 382,776 46 |
| Rideau | 4,085,889 21 | | 4,085,889 21 |
| St. Ours. | 121,537 65 | | 121,537 65 |
| Chambly. | 637,214 66 | 43,786 43 | 681,001 09 |
| Murray. | 1,248,946 71 | | 1,248,946 71 |
| Trent. | 7,873,501 09 | | 7,873,501 09 |
| Tay | 489,599 23 | | 489,599 23 |
| Sault Ste. Marie.... | 4,868,532 60 | | 4,868,532 60 |
| Soulanges. | 7,126,135 61 | | 7,126,135 61 |
| Total | 42,884,960 77 | 54,077,454 90 | 96,962,415 67 |

* Construction by Imperial Government not included. Records relating to same were kept in Ordnance Office, Montreal, and were destroyed by fire in 1852.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

| | Year ending. | Capital. | Income. | Staff. | Repairs. | Revenue received. |
|--|-----------------|---------------|------------|------------|------------|----------------------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation, including Imperial Government expenditure | | 20,593,866 13 | 98,378 46 | | | |
| Government expenditure since Confederation..... | 1868 | 33,784 06 | 95,347 79 | 113,084 50 | 101,646 44 | 403,879 19 |
| " " " " " " | 1869 | 126,898 20 | 55 00 | 116,069 76 | 118,579 31 | 400,263 32 |
| " " " " " " | 1870 | | 90,355 96 | 120,403 02 | 150,176 70 | 414,687 02 |
| " " " " " " | 1871 | | 116,429 54 | 135,040 81 | 140,467 52 | 488,538 76 |
| " " " " " " | 1872 | 255,645 75 | 33,289 27 | 124,137 09 | 152,086 25 | 466,847 52 |
| " " " " " " | 1873 | 256,547 27 | 127,369 55 | 148,581 18 | 186,573 13 | 486,433 26 |
| " " " " " " | 1874 | 1,189,591 91 | 51,037 05 | 167,194 40 | 213,613 86 | 510,755 99 |
| " " " " " " | 1875 | 1,714,830 37 | 479 00 | 168,401 21 | 203,226 85 | 414,979 59 |
| " " " " " " | 1876 | 2,388,733 46 | 810 75 | 178,411 80 | 190,578 45 | 390,337 04 |
| " " " " " " | 1877 | 4,131,374 30 | 22 30 | 179,661 40 | 138,448 51 | 390,857 37 |
| " " " " " " | 1878 | 3,843,338 62 | | 187,521 31 | 122,251 60 | 373,814 17 |
| " " " " " " | 1879 | 3,064,098 61 | | 191,892 44 | 115,349 99 | 337,675 13 |
| " " " " " " | 1880 | 2,123,366 34 | | 195,039 33 | 147,167 52 | 341,598 14 |
| " " " " " " | 1881 | 2,075,891 65 | 7,246 69 | 197,573 62 | 154,653 63 | 361,558 17 |
| " " " " " " | 1882 | 1,593,174 09 | 55,025 03 | 224,572 61 | 187,399 02 | 325,231 54 |
| " " " " " " | 1883 | 1,763,001 97 | 62,503 14 | 269,415 01 | 178,617 86 | 361,604 01 |
| " " " " " " | 1884 | 1,577,295 42 | 60,993 99 | 280,657 29 | 192,219 38 | 372,561 69 |
| " " " " " " | 1885 | 1,504,621 47 | 58,297 59 | 280,226 20 | 201,708 47 | 321,289 47 |
| " " " " " " | 1886 | 1,333,324 80 | 31,984 02 | 282,323 63 | 198,251 97 | 328,977 43 |
| " " " " " " | 1887 | 1,783,698 16 | 65,983 06 | 285,172 62 | 198,888 84 | 321,784 88 |
| " " " " " " | 1888 | 1,033,118 34 | 120,561 59 | 292,458 76 | 201,928 93 | 317,902 04 |
| " " " " " " | 1889 | 972,918 43 | 162,015 49 | 301,040 23 | 240,261 36 | 333,188 90 |
| " " " " " " | 1890 | 1,026,364 24 | 146,853 54 | 290,516 63 | 176,089 00 | 354,816 92 |
| " " " " " " | 1891 | 1,318,092 15 | 165,843 87 | 294,562 12 | 204,768 45 | 349,431 90 |
| " " " " " " | 1892 | 1,437,149 30 | 194,129 61 | 293,115 58 | 231,089 54 | 324,475 24 |
| " " " " " " | 1893 | 2,069,573 30 | 196,185 84 | 291,588 97 | 204,759 39 | 357,089 87 |
| " " " " " " | 1894 | 3,027,164 19 | 109,216 33 | 294,446 34 | 179,630 13 | 387,788 97 |
| " " " " " " | 1895 | 2,452,273 65 | 216,057 58 | 281,477 04 | 164,033 71 | 339,890 49 |
| " " " " " " | 1896 | 2,258,778 97 | 85,820 49 | 292,121 05 | 209,321 60 | 339,538 72 |
| " " " " " " | 1897 | 2,348,636 91 | 101,205 74 | 287,970 36 | 178,385 47 | 384,780 53 |
| " " " " " " | 1898 | 3,207,249 79 | 82,400 55 | 280,872 44 | 203,478 86 | 407,652 81 |
| " " " " " " | 1899 | 3,899,877 31 | 82,205 60 | 280,628 57 | 202,312 36 | 369,044 38 |
| " " " " " " | 1900 | 2,639,564 93 | 120,653 93 | 292,609 24 | 227,626 97 | 322,642 86 |
| " " " " " " | 1901 | 2,360,569 89 | 135,500 57 | 314,095 04 | 262,876 07 | 315,425 69 |
| " " " " " " | 1902 | 2,114,689 88 | 213,044 91 | 317,838 61 | 263,768 27 | 300,413 68 |
| " " " " " " | 1903 | 1,823,273 61 | 275,103 58 | 390,281 82 | 294,113 92 | 230,213 15 |
| " " " " " " | 1904 | 1,880,787 20 | 298,678 23 | 381,016 82 | 350,278 54 | 79,536 51 |
| " " " " " " | 1905 | 2,071,593 72 | 352,855 43 | 431,499 60 | 401,742 79 | 78,009 21 |
| " " " " " " | 1906 | 1,552,121 21 | 310,716 70 | 447,962 92 | 375,889 60 | 108,067 76 |
| " " " " " " | 1907 | 887,838 61 | 254,423 18 | | | |

W. C. LITTLE.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

CANAL REVENUE STATEMENT FOR YEAR ENDING MARCH 31, 1910.

| CANAL REVENUE. | | | | COLLECTION DIVISIONS. | | | | DEPOSITS TO THE CREDIT OF THE RECEIVER GENERAL. | | Cost of Staff, Repairs and Others of collection chargeable to Revenue. | |
|--|-----------------------|------------------------------------|--------------------------------------|-----------------------|---------------------------------------|---------------------|---------------|---|--|--|------------|
| Wharfage Storage, Harbour Dues, &c. | Elevator Receipts. | Total Canal Revenue Accrued. | Hydraulic and other Rents, &c. | Total. | Wichitau Canal... | St. Lawrence Canals | Chambly Canal | On Account Canal Revenue. | On Account Hydraulic and other Rents. | Total. | |
| \$ | cts. | \$ | cts. | \$ | cts. | \$ | cts. | \$ | cts. | \$ | cts. |
| 51 60 | | 51 60 | 4,528 80 | 4,580 40 | Port Colborne..... | 16,691 50 | | 51 60 | 1,528 80 | 4,580 40 | 208,741 59 |
| 310 94 | | 310 94 | 37,010 98 | 37,321 92 | Port Dalhousie..... | 7,669 50 | | 310 94 | 37,010 98 | 37,321 92 | 2,601 29 |
| | 12,061 46 | 12,061 46 | | 12,061 46 | Port Colborne Elevator..... | 5,240 00 | | 12,061 46 | | 12,061 46 | 2,151 48 |
| 362 54 | 12,061 46 | 12,124 00 | 41,539 78 | 53,963 78 | Totals..... | | | 12,424 00 | 41,539 78 | 53,963 78 | 13,906 01 |
| 1,193 70 | | 1,193 70 | 16,691 50 | 16,691 50 | St. Lawrence Canals | | | | | | 227,400 37 |
| 1,153 53 | | 1,153 53 | 7,669 50 | 8,863 20 | Beauharnois..... | 16,691 50 | | | | | 440,648 05 |
| 10,241 18 | | 10,241 18 | 5,240 00 | 5,240 00 | Corwall..... | 7,669 50 | | 1,193 70 | 7,669 50 | 8,863 20 | 1,708 30 |
| 25 00 | | 25 00 | | | Cardinal..... | 5,240 00 | | | 5,240 00 | 5,240 00 | 1,030 47 |
| | | | | | Lachine..... | 1,153 53 | | 1,153 53 | | 1,153 53 | 2,417 89 |
| | | | | | Montreal..... | 95,913 74 | | 10,241 18 | 85,672 56 | 95,913 74 | 11,752 59 |
| | | | | | Coteau Landing (Soulanges Canal)..... | 3,092 00 | | 25 00 | 3,067 00 | 3,092 00 | 1,486 97 |
| | | | | | Kingston..... | | | | | | 589 70 |
| 12,613 41 | | 12,613 41 | 118,340 56 | 130,953 97 | Totals..... | | | 12,613 41 | 118,340 56 | 130,953 97 | 159,673 97 |
| | | | | | Chambly Canal | | | | | | 59,533 99 |
| | | | 51 00 | 51 00 | Chambly..... | 51 00 | | | 51 00 | 51 00 | 1,289 40 |
| | | | 147 00 | 147 00 | St. John's..... | 147 00 | | | 147 00 | 147 00 | 1,590 95 |
| | | | | | St. Ours..... | | | | | | 700 35 |
| | | | 198 00 | 198 00 | Totals..... | | | | 198 00 | 198 00 | 63,114 69 |
| | | | | | Ottawa Canals | | | | | | 42,815 88 |
| 8 00 | | 8 00 | 5 00 | 13 00 | Ottawa..... | | | | | | |
| | | | 104 00 | 104 00 | Grenville..... | 8 00 | | | 5 00 | 13 00 | 623 35 |
| | | | 30 00 | 30 00 | Carleton..... | | | | 104 00 | 104 00 | 802 55 |
| | | | | | Ste. Anne's Lock..... | | | | 30 00 | 30 00 | 875 85 |
| 8 00 | | 8 00 | 139 00 | 147 00 | Totals..... | | | 8 00 | 139 00 | 147 00 | 45,117 63 |

HYDRAULIC AND OTHER RENTS.

| Balances due April 1, 1909. | Accrued during the year ended March 31, 1910. | Totals. | 1909-1910. | Abatement. | Deposited to the credit of the Receiver General. | Paid into hands of the Collectors. | Balance due March 31, 1910. | Totals. |
|-----------------------------|---|------------|---|------------|--|------------------------------------|-----------------------------|------------|
| \$ cts. | \$ cts. | \$ cts. | | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 57,167 77 | 47,188 88 | 104,356 65 | Welland Canal..... | 101 64 | 41,539 78 | 41,539 78 | 62,715 23 | 104,356 65 |
| 7,878 17 | 3,438 00 | 11,316 17 | Williamsburg Canal..... | 2,000 00 | 5,240 00 | 5,240 00 | 4,076 17 | 11,316 17 |
| 7,940 37 | 7,654 50 | 15,594 87 | Cornwall Canal..... | | 7,669 50 | 7,669 50 | 7,925 37 | 15,594 87 |
| 8,658 34 | 15,001 00 | 23,659 34 | Beauharnois Canal..... | | 16,691 50 | 16,691 50 | 6,967 84 | 23,659 34 |
| 33,485 38 | 91,059 78 | 124,545 16 | Lachine Canal..... | 5,275 96 | 85,672 56 | 85,672 56 | 33,596 64 | 124,545 16 |
| 889 84 | 186 00 | 1,075 84 | Chambly Canal..... | | 198 00 | 198 00 | 877 84 | 1,075 84 |
| 4,254 20 | 4,201 50 | 8,455 70 | Rideau Canal..... | 10 50 | 3,516 75 | 3,516 75 | 4,928 45 | 8,455 70 |
| 2,004 45 | 3,072 04 | 5,076 49 | Trent Canal..... | 373 50 | 4,596 54 | 4,596 54 | 106 45 | 5,076 49 |
| 15 00 | 575 00 | 590 00 | Sault Ste. Marie Canal..... | | 530 00 | 530 00 | 60 00 | 590 00 |
| 26,492 83 | 615 00 | 27,107 83 | Carillon and Grenville Canal..... | | 109 00 | 109 00 | 26,998 83 | 27,107 83 |
| 9 00 | 68 00 | 77 00 | Sundry Canals..... | | 63 00 | 63 00 | 14 00 | 77 00 |
| ..... | 3,067 00 | 3,067 00 | Soulanges Canals..... | | 3,067 00 | 3,067 00 | ..... | 3,067 00 |
| 148,795 35 | 176,126 70 | 324,922 05 | Totals..... | 7,761 60 | 168,893 63 | 168,893 63 | 148,266 82 | 324,922 05 |

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

INTERCOLONIAL RAILWAY.

(Including amounts paid to Nova Scotia Railway and European and North American Railway, N.B.)

| | Year ending | Construction. | Income. | Working Expenses including Windsor Branch Ry. | Revenue received, including Windsor Branch Ry. |
|---|-------------|----------------|------------|---|--|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Expenditure prior to Confederation..... | | 10,766,725 54 | | | |
| " since "..... | 1868 | 483,353 65 | | 359,961 08 | 420,752 58 |
| " "..... | 1869 | 282,615 18 | | 387,548 47 | 455,022 76 |
| " "..... | 1870 | 1,729,381 49 | | 445,208 75 | 471,245 09 |
| " "..... | 1871 | 2,916,782 13 | | 442,993 31 | 565,713 52 |
| " "..... | 1872 | 5,131,141 51 | | 595,076 22 | 622,900 56 |
| " "..... | 1873 | 5,201,450 37 | | 1,011,892 60 | 703,458 26 |
| " "..... | 1874 | 3,614,898 81 | | 1,847,175 24 | 893,430 17 |
| " "..... | 1875 | 3,426,099 55 | | 1,532,589 62 | 861,593 43 |
| " "..... | 1876 | 1,108,321 59 | | 1,277,197 79 | 848,861 46 |
| " "..... | 1877 | 1,318,352 19 | | 1,661,673 55 | 1,154,445 35 |
| " "..... | 1878 | 408,816 74 | | 1,811,273 56 | 1,378,946 78 |
| " "..... | 1879 | 226,639 19 | | 2,010,183 22 | 1,294,099 69 |
| " "..... | 1880 | 2,048,014 60 | | 1,607,956 70 | 1,520,310 45 |
| " "..... | 1881 | 608,732 80 | | 1,780,353 53 | 1,777,856 76 |
| " "..... | 1882 | 585,568 79 | | 2,080,592 37 | 2,100,315 85 |
| " "..... | 1883 | 1,616,632 96 | | 2,383,477 20 | 2,395,034 99 |
| " "..... | 1884 | 1,405,377 52 | | 2,366,719 95 | 2,376,666 19 |
| " "..... | 1885 | 1,195,363 08 | | 2,460,229 87 | 2,392,605 00 |
| " "..... | 1886 | 544,958 17 | | 2,508,473 10 | 2,406,858 88 |
| " "..... | 1887 | 823,070 86 | | 2,854,158 91 | 2,621,337 41 |
| " "..... | 1888 | 742,203 09 | | 3,300,481 94 | 2,937,337 40 |
| " "..... | 1889 | 655,228 13 | | 3,174,785 19 | 2,923,736 46 |
| " "..... | 1890 | 365,246 48 | | 3,500,455 80 | 2,958,243 38 |
| " "..... | 1891 | 79,929 34 | | 3,691,273 65 | 3,007,630 51 |
| " "..... | 1892 | 168,101 77 | | 3,458,891 39 | 2,978,950 82 |
| " "..... | 1893 | 228,984 79 | | 3,062,207 45 | 3,099,815 20 |
| " "..... | 1894 | 166,362 43 | | 2,999,317 07 | 3,020,485 74 |
| " "..... | 1895 | 327,034 51 | | 2,964,940 98 | 2,979,795 59 |
| " "..... | 1896 | 259,105 23 | | 3,029,304 08 | 2,994,201 93 |
| " "..... | 1897 | 145,142 00 | | 2,936,789 71 | 2,906,631 25 |
| " "..... | 1898 | 252,367 20 | 70,000 00 | 3,275,830 14 | 3,154,896 49 |
| " "..... | 1899 | 1,081,929 94 | 210,000 00 | 3,478,559 30 | 3,775,558 08 |
| " "..... | 1900 | 1,796,348 29 | | 4,444,296 25 | 4,599,423 14 |
| " "..... | 1901 | 3,633,836 57 | | 5,477,285 30 | 5,019,497 76 |
| " "..... | 1902 | 4,621,841 05 | | 5,596,939 57 | 5,720,990 50 |
| " "..... | 1903 | 2,254,266 68 | | 6,214,496 38 | 6,366,884 53 |
| " "..... | 1904 | †1,880,856 60 | | 7,264,263 13 | 6,392,865 48 |
| " "..... | 1905 | 3,937,621 93 | | 8,535,689 91 | 6,833,561 50 |
| " "..... | 1906 | ‡3,765,170 90 | | 7,599,400 33 | 7,693,282 40 |
| " "..... | 1907 | 1,506,209 26 | | 6,045,597 15 | 6,293,751 52 |
| " "..... | 1908 | 4,363,494 01 | | 9,195,347 64 | 9,229,989 21 |
| " "..... | 1909 | 3,867,232 16 | | 9,364,256 10 | 8,583,100 79 |
| " "..... | 1910 | 1,278,409 45 | | 8,668,620 23 | 9,328,888 97 |
| Total | | *82,819,218 53 | 280,000 00 | 147,797,763 73 | 140,060,973 83 |

* Including \$296,872.90 charged to 'Consolidated Fund.'

| | |
|---------------------------------------|------------------------|
| † Expenditure for year..... | \$ 1,894,856 90 |
| Less refunds of previous years | 14,000 30 |
| | <u>\$ 1,880,856 60</u> |

| | |
|---|------------------------|
| ‡ Expenditure for year..... | \$ 3,760,942 95 |
| Add refunded cheque of 1901-2 paid during fiscal year | |
| 1905-6... .. | 4,227 95 |
| | <u>\$ 3,765,170 90</u> |

INTERCOLONIAL RAILWAY—*Concluded.*

Total cost of Construction as shown on page 35..... \$82,819,213 53
Less amounts transferred from Capital to Consolidated Fund as follows :—

| | Nova Scotia Ry. | European and North American Ry. | |
|---|-----------------|------------------------------------|------------------|
| 1868..... | \$ 16,800 99 | \$ 11,302 89 | |
| 1870..... | 34,403 45 | 1,749 21 | |
| 1871..... | 50,405 69 | ..... |  |
| 1873..... | 106,899 59 | 75,311 08 | |
| | <hr/> | <hr/> | |
| | \$ 208,509 72 | \$ 88,363 18 | |
| | | 208,509 72 | |
| | | <hr/> | 296,872 90 |
| | | | <hr/> |
| Cape Breton Railway, page 40..... | | 3,860,679 14 | †\$82,522,345 63 |
| Oxford and New Glasgow Railway, page 39 | | 1,949,063 21 | |
| Eastern Extension Railway, page 37 | | 1,324,042 81 | |
| Montreal and European Short Line Railway, page 41... .. | | 333,942 72 | |
| Drummond County Railway, page 45 | | 1,464,000 00 | |
| Canada Eastern Railway, page 48... .. | | 819,000 00 | |
| | | <hr/> | *9,750,727 88 |
| | | | <hr/> |
| Total capital cost of Intercolonial Railway system..... | | | \$92,273,073 51 |

* Agreeing, less outstanding cheques, with Public Accounts, 1908-1909, page 4.
† Includes \$220.48 amount of an Exchequer Court award in 1907 against the Oxford and New Glasgow Railway.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

EASTERN EXTENSION RAILWAY.

| | Year. | Capital. | Working Expenses. | Revenue Received. |
|--|-------|----------------|-------------------|-------------------|
| | | \$ cts. | \$ cts. | \$ cts. |
| Government ex enditure prior to Confederation..... | 1868 | | | |
| " since " | 1869 | | | |
| " " " | 1870 | | | |
| " " " | 1871 | | | |
| " " " | 1872 | | | |
| " " " | 1873 | | | |
| " " " | 1874 | | | |
| " " " | 1875 | | | |
| " " " | 1876 | | | |
| " " " | 1877 | | | |
| " " " | 1878 | | | |
| " " " | 1879 | | | |
| " " " | 1880 | | | |
| " " " | 1881 | | | |
| " " " | 1882 | | | |
| " " " | 1883 | | | |
| " " " | 1884 | 1,284,311 97 | 10,033 77 | 30,767 66 |
| " " " | 1885 | 2,055 92 | 78,273 65 | 73,050 01 |
| " " " | 1886 | 183 79 | 94,756 06 | 66,893 11 |
| " " " | 1887 | | 94,254 04 | 64,107 10 |
| " " " | 1888 | | 90,954 73 | 70,552 20 |
| " " " | 1889 | 34,235 73 | 90,719 04 | 72,436 65 |
| " " " | 1890 | | 79,102 77 | 84,658 95 |
| " " " | 1891 | 3,255 40 | * | † |
| " " " | 1892 | | * | † |
| " " " | 1893 | | * | † |
| " " " | 1894 | | * | † |
| " " " | 1895 | | * | † |
| " " " | 1896 | | * | † |
| " " " | 1897 | | * | † |
| " " " | 1898 | | * | † |
| " " " | 1899 | | ■ | † |
| " " " | 1900 | | * | † |
| " " " | 1901 | | * | † |
| " " " | 1902 | | * | † |
| " " " | 1903 | | * | † |
| " " " | 1904 | | * | † |
| " " " | 1905 | | * | † |
| " " " | 1906 | | * | † |
| " " " | 1907 | | * | † |
| " " " | 1908 | | * | † |
| " " " | 1909 | | ■ | † |
| " " " | 1910 | | * | † |
| Total | | † 1,324,042 81 | 538,094 06 | 462,465 68 |

*Included in Intercolonial Railway expenses. †Included in Intercolonial Railway revenue.
‡Included in total cost of Intercolonial Railway system, page 36.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

CARLETON BRANCH RAILWAY.

| | Year. | Capital. | Working Expenses. | Revenue Received. |
|--|-------|------------|-------------------|-------------------|
| | | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation..... | | | | |
| " since " | 1868 | | | |
| " " " | 1869 | | | |
| " " " | 1870 | | | |
| " " " | 1871 | | | |
| " " " | 1872 | | | |
| " " " | 1873 | | | |
| " " " | 1874 | | | |
| " " " | 1875 | | | |
| " " " | 1876 | | | |
| " " " | 1877 | | | |
| " " " | 1878 | | | |
| " " " | 1879 | | | |
| " " " | 1880 | | | |
| " " " | 1881 | | | |
| " " " | 1882 | | | |
| " " " | 1883 | | | |
| " " " | 1884 | | | |
| " " " | 1885 | | | |
| " " " | 1886 | 85,610 69 | | |
| " " " | 1887 | 2,299 62 | | |
| " " " | 1888 | 500 17 | | |
| " " " | 1889 | | | |
| " " " | 1890 | | | |
| " " " | 1891 | | | |
| " " " | 1892 | | | |
| " " " | 1893 | | | |
| " " " | 1894 | | | |
| " " " | 1895 | | | |
| " " " | 1896 | | | |
| " " " | 1897 | | | |
| " " " | 1898 | | | |
| " " " | 1899 | | | |
| " " " | 1900 | | | |
| " " " | 1901 | | | |
| " " " | 1902 | | | |
| " " " | 1903 | | | |
| " " " | 1904 | | | |
| " " " | 1905 | | | |
| " " " | 1906 | | | |
| " " " | 1907 | | | |
| " " " | 1908 | | | |
| " " " | 1909 | | | |
| " " " | 1910 | | | |
| Total. | | *88,410 48 | | |

*Victoria, chap. 6, transferred the Carleton Branch Railway to the city of St. John, N. B., for the sum of \$40,000, which sum was paid, in March 1893, to the Receiver General.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

OXFORD AND NEW GLASGOW RAILWAY.

| | | | | Year. | Capital. | Working Expenses. |
|---|-------|---|--|-------|----------------|-------------------|
| | | | | | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation | | | | | | |
| " | since | " | | 1868 | | |
| " | " | " | | 1869 | | |
| " | " | " | | 1870 | | |
| " | " | " | | 1871 | | |
| " | " | " | | 1872 | | |
| " | " | " | | 1873 | | |
| " | " | " | | 1874 | | |
| " | " | " | | 1875 | | |
| " | " | " | | 1876 | | |
| " | " | " | | 1877 | | |
| " | " | " | | 1878 | | |
| " | " | " | | 1879 | | |
| " | " | " | | 1880 | | |
| " | " | " | | 1881 | | |
| " | " | " | | 1882 | | |
| " | " | " | | 1883 | | |
| " | " | " | | 1884 | | |
| " | " | " | | 1885 | | |
| " | " | " | | 1886 | | |
| " | " | " | | 1887 | | |
| " | " | " | | 1888 | 280,932 35 | |
| " | " | " | | 1889 | 840,553 57 | |
| " | " | " | | 1890 | 434,074 60 | |
| " | " | " | | 1891 | 220,886 39 | |
| " | " | " | | 1892 | 48,745 23 | |
| " | " | " | | 1893 | 7,922 80 | |
| " | " | " | | 1894 | 112,382 75 | |
| " | " | " | | 1895 | * | |
| " | " | " | | 1896 | * | |
| " | " | " | | 1897 | 3,565 52 | |
| " | " | " | | 1898 | | |
| " | " | " | | 1899 | | |
| " | " | " | | 1900 | | |
| " | " | " | | 1901 | | |
| " | " | " | | 1902 | | |
| " | " | " | | 1903 | | |
| " | " | " | | 1904 | | |
| " | " | " | | 1905 | | |
| " | " | " | | 1906 | | |
| " | " | " | | 1907 | * | |
| " | " | " | | 1908 | | |
| " | " | " | | 1909 | | |
| " | " | " | | 1910 | | |
| Total | | | | | ‡ 1,949,063 21 | † |

* Included in Intercolonial Railway capital.

† Included in Intercolonial Railway working expenses.

‡ Included in total cost of Intercolonial Railway system, page 36. Add \$220.48 amount of Exchequer Court award paid in 1907 and included in Intercolonial Ry.

W. C. LITTLE,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

CAPE BRETON RAILWAY.

| | | | | Year. | Capital. | Working Expenses. |
|--|-------|---|--|-------|----------------|-------------------|
| | | | | | \$ cts. | \$ cts. |
| Gouvernement expenditnre prior to Confederation..... | | | | 1868 | | |
| " | since | " | | 1869 | | |
| " | " | " | | 1870 | | |
| " | " | " | | 1871 | | |
| " | " | " | | 1872 | | |
| " | " | " | | 1873 | | |
| " | " | " | | 1874 | | |
| " | " | " | | 1875 | | |
| " | " | " | | 1876 | | |
| " | " | " | | 1877 | | |
| " | " | " | | 1878 | | |
| " | " | " | | 1879 | | |
| " | " | " | | 1880 | | |
| " | " | " | | 1881 | | |
| " | " | " | | 1882 | | |
| " | " | " | | 1883 | | |
| " | " | " | | 1884 | | |
| " | " | " | | 1885 | | |
| " | " | " | | 1886 | | |
| " | " | " | | 1887 | 76,501 89 | |
| " | " | " | | 1888 | 689,450 50 | |
| " | " | " | | 1889 | 1,083,276 60 | |
| " | " | " | | 1890 | 1,170,523 62 | |
| " | " | " | | 1891 | 521,441 62 | |
| " | " | " | | 1892 | 99,936 96 | |
| " | " | " | | 1893 | 59,982 74 | |
| " | " | " | | 1894 | 158,770 61 | |
| " | " | " | | 1895 | * | |
| " | " | " | | 1896 | * | |
| " | " | " | | 1897 | 405 00 | |
| " | " | " | | 1898 | 389 60 | |
| " | " | " | | 1899 | | |
| " | " | " | | 1900 | | |
| " | " | " | | 1901 | | |
| " | " | " | | 1902 | | |
| " | " | " | | 1903 | | |
| " | " | " | | 1904 | | |
| " | " | " | | 1905 | | |
| " | " | " | | 1906 | | |
| " | " | " | | 1907 | | |
| " | " | " | | 1908 | | |
| " | " | " | | 1909 | | |
| " | " | " | | 1910 | | |
| Total..... | | | | | \$3,860,679 14 | † |

* Included in Intercolonial Railway capital. † Included in Intercolonial Railway working expenses.
§ Included in total cost of Intercolonial Railway system, see page 36.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

MONTREAL AND EUROPEAN SHORT LINE RAILWAY.

| | | | | Year. | Construction. | Working Expenses. |
|--|-------|---|--|-------|---------------|-------------------|
| | | | | | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation..... | | | | 1868 | | |
| " | since | " | | 1869 | | |
| " | " | " | | 1870 | | |
| " | " | " | | 1871 | | |
| " | " | " | | 1872 | | |
| " | " | " | | 1873 | | |
| " | " | " | | 1874 | | |
| " | " | " | | 1875 | | |
| " | " | " | | 1876 | | |
| " | " | " | | 1877 | | |
| " | " | " | | 1878 | | |
| " | " | " | | 1879 | | |
| " | " | " | | 1880 | | |
| " | " | " | | 1881 | | |
| " | " | " | | 1882 | | |
| " | " | " | | 1883 | | |
| " | " | " | | 1884 | | |
| " | " | " | | 1885 | 49,587 45 | |
| " | " | " | | 1886 | 135,214 38 | |
| " | " | " | | 1887 | 24,157 32 | |
| " | " | " | | 1888 | 397 35 | |
| " | " | " | | 1889 | | |
| " | " | " | | 1890 | | |
| " | " | " | | 1891 | 124,568 23 | |
| " | " | " | | 1892 | | |
| " | " | " | | 1893 | | |
| " | " | " | | 1894 | 17 99 | |
| " | " | " | | 1895 | | |
| " | " | " | | 1896 | | |
| " | " | " | | 1897 | | |
| " | " | " | | 1898 | | |
| " | " | " | | 1899 | | |
| " | " | " | | 1900 | | |
| " | " | " | | 1901 | | |
| " | " | " | | 1902 | | |
| " | " | " | | 1903 | | |
| " | " | " | | 1904 | | |
| " | " | " | | 1905 | | |
| " | " | " | | 1906 | | |
| " | " | " | | 1907 | | |
| " | " | " | | 1908 | | |
| " | " | " | | 1909 | | |
| " | " | " | | 1910 | | |
| Total..... | | | | | *333,942 72 | |

*Included in total cost of Intercolonial Railway system, page 36.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

PRINCE EDWARD ISLAND RAILWAY.

| | Year. | Construction. | Working Expenses. | Revenue received. |
|--|-------|---------------|-------------------|-------------------|
| | | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation..... | | 3,114,735 11 | | |
| " since " | 1874 | | 750 00 | |
| " " " | 1875 | 46,086 63 | 49,344 62 | 24,493 99 |
| " " " | 1876 | 42,546 10 | 219,930 43 | 118,060 96 |
| " " " | 1877 | 200,000 00 | 228,595 25 | 130,664 92 |
| " " " | 1878 | 6,551 86 | 221,599 49 | 135,899 60 |
| " " " | 1879 | 40,129 05 | 223,313 12 | 125,855 91 |
| " " " | 1880 | 16,539 82 | 164,640 55 | 113,851 11 |
| " " " | 1881 | | 203,122 88 | 131,131 43 |
| " " " | 1882 | 402 03 | 228,259 97 | 137,267 54 |
| " " " | 1883 | 57,186 02 | 252,808 41 | 146,170 42 |
| " " " | 1884 | 130,663 38 | 236,428 13 | 144,504 12 |
| " " " | 1885 | 76,956 56 | 211,207 01 | 158,588 06 |
| " " " | 1886 | 4,668 33 | 216,744 34 | 155,584 36 |
| " " " | 1887 | 5,800 00 | 204,237 45 | 155,303 37 |
| " " " | 1888 | | 229,639 95 | 158,363 62 |
| " " " | 1889 | | 247,559 44 | 171,369 56 |
| " " " | 1890 | | 266,485 85 | 160,971 78 |
| " " " | 1891 | | 257,990 08 | 174,258 05 |
| " " " | 1892 | 8,300 49 | 289,706 38 | 157,442 69 |
| " " " | 1893 | | 226,422 17 | 162,690 42 |
| " " " | 1894 | | 226,891 06 | 158,533 83 |
| " " " | 1895 | | 232,905 19 | 149,654 78 |
| " " " | 1896 | | 225,138 56 | 146,476 54 |
| " " " | 1897 | | 240,489 90 | 153,443 13 |
| " " " | 1898 | 17,541 88 | 231,418 74 | 158,950 61 |
| " " " | 1899 | 22,000 00 | 218,053 01 | 165,012 03 |
| " " " | 1900 | 53,546 02 | 220,931 81 | 174,738 73 |
| " " " | 1901 | 280,173 93 | 261,766 24 | 193,883 48 |
| " " " | 1902 | 475,997 94 | 270,159 97 | 197,999 93 |
| " " " | 1903 | 829,414 18 | 259,637 82 | 217,714 24 |
| " " " | 1904 | 698,877 47 | 335,695 44 | 234,390 03 |
| " " " | 1905 | 591,412 65 | 370,464 44 | 217,330 61 |
| " " " | 1906 | 496,124 89 | 294,253 16 | 257,270 57 |
| " " " | 1907 | 91,710 52 | 283,148 50 | 215,434 97 |
| " " " | 1908 | 390,461 83 | 399,947 79 | 304,579 83 |
| " " " | 1909 | 561,206 90 | 400,330 41 | 311,319 63 |
| " " " | 1910 | 206,396 97 | 427,283 73 | 319,074 74 |
| Total..... | | *8,465,430 56 | 9,077,301 29 | 6,238,279 59 |

*Agrees with Public Accounts Balance Sheet, 1909-1910, page 4.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

CANADIAN PACIFIC RAILWAY.

| | Year. | Construction, including subsidy of \$25,000,000. | Working Expenses. | Revenue received. |
|--|----------|--|----------------------|----------------------|
| | | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation..... | | | | |
| " since " | 1868 | | | |
| " " " | 1869 | | | |
| " " " | 1870 | | | |
| " " " | 1871 | 30,148 32 | | |
| " " " | 1872 | 489,428 16 | | |
| " " " | 1873 | 561,818 44 | | |
| " " " | 1874 | 310,224 88 | | |
| " " " | 1875 | 1,546,241 67 | | |
| " " " | 1876 | 3,346,567 06 | | |
| " " " | 1877 | 1,691,149 97 | | |
| " " " | 1878 | 2,228,373 13 | | |
| " " " | 1879 | 2,240,285 47 | | |
| " " " | 1880 | 4,044,522 72 | 78,892 01 | 104,975 69 |
| " " " | 1881 | 4,968,503 93 | 236,944 98 | 291,498 06 |
| " " " | 1882 (1) | 4,589,075 79 | 1,786 20 | |
| " " " | 1883 (2) | 10,033,800 04 | 266 09 | |
| " " " | 1884 (3) | 11,192,722 02 | 327 02 | |
| " " " | 1885 (4) | 9,900,281 53 | | |
| " " " | 1886 (5) | 3,672,584 81 | | |
| " " " | 1887 (6) | 915,057 49 | | |
| " " " | 1888 | 52,098 65 | | |
| " " " | 1889 | 86,716 07 | | |
| " " " | 1890 | 40,980 54 | | |
| " " " | 1891 | 37,367 00 | | |
| " " " | 1892 | 66,211 39 | | |
| " " " | 1893 | 413,836 49 | | |
| " " " | 1894 | 146,539 87 | | |
| " " " | 1895 | 49,209 77 | | |
| " " " | 1896 | 65,669 49 | | |
| " " " | 1897 | 14,054 50 | | |
| " " " | 1898 | 692 17 | | |
| " " " | 1899 | 8,418 53 | | |
| " " " | 1900 | 236 11 | | |
| " " " | 1901 | 8,978 87 | | |
| " " " | 1902 | 448 70 | | |
| " " " | 1903 | | | |
| " " " | 1904 | 33,076 39 | | |
| " " " | 1905 | | | |
| " " " | 1906 | | | |
| " " " | 1907 | | | |
| " " " | 1908 | 600 00 | | |
| " " " | 1909 | 937 77 | | |
| " " " | 1910 | | | |
| Total..... | | *62,786,857 74 | 318,216 30 | 396,473 75 |

* Agrees with Public Accounts Balance Sheet, 1909-1910, page 8.

| | | |
|--------------------|-----------------|---------------------|
| (1) Including..... | \$ 2,210,000 00 | on account subsidy. |
| (2) " | 5,323,076 60 | " |
| (3) " | 7,254,208 27 | " |
| (4) " | 6,862,201 00 | " |
| (5) " | 2,890,427 00 | " |
| (6) " | 460,087 13 | " |

†\$25,000,000 00

† See also statement page 54, for the expenditure.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

1 GEORGE V., A. 1911

ANNAPOLIS AND DIGBY RAILWAY.

| | | | | Year. | Capital. | Income Expenses. |
|--|-------|---|--|-------|-------------|------------------|
| | | | | | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation..... | | | | 1868 | | |
| " | since | " | | 1869 | | |
| " | " | " | | 1870 | | |
| " | " | " | | 1871 | | |
| " | " | " | | 1872 | | |
| " | " | " | | 1873 | | |
| " | " | " | | 1874 | | |
| " | " | " | | 1875 | | |
| " | " | " | | 1876 | | |
| " | " | " | | 1877 | | |
| " | " | " | | 1878 | | |
| " | " | " | | 1879 | | |
| " | " | " | | 1880 | | |
| " | " | " | | 1881 | | |
| " | " | " | | 1882 | | |
| " | " | " | | 1883 | | |
| " | " | " | | 1884 | | |
| " | " | " | | 1885 | | |
| " | " | " | | 1886 | | |
| " | " | " | | 1887 | | |
| " | " | " | | 1888 | | |
| " | " | " | | 1889 | 9,847 27 | |
| " | " | " | | 1890 | 381,942 75 | |
| " | " | " | | 1891 | 196,869 36 | |
| " | " | " | | 1892 | 26,129 89 | |
| " | " | " | | 1893 | 2,190 62 | |
| " | " | " | | 1894 | 1,675 36 | |
| " | " | " | | 1895 | 570 55 | |
| " | " | " | | 1896 | | |
| " | " | " | | 1897 | 41,457 29 | |
| " | " | " | | 1898 | | |
| " | " | " | | 1899 | | |
| " | " | " | | 1900 | | |
| " | " | " | | 1901 | | 8,381 82 |
| " | " | " | | 1902 | | |
| " | " | " | | 1903 | | |
| " | " | " | | 1904 | | |
| " | " | " | | 1905 | | |
| " | " | " | | 1906 | | |
| " | " | " | | 1907 | | |
| " | " | " | | 1908 | | |
| " | " | " | | 1909 | | |
| " | " | " | | 1910 | | |
| Total..... | | | | | *660,683 09 | 8,381 82 |

* Of this amount Parliament voted under 52 Vic., chap. 8, the sum of \$500,000 as a subsidy to the Western Counties Railway.

W. C. LITTLE,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

DRUMMOND COUNTY RAILWAY.

| | Year. | Construction. | Working Expenses. |
|--|-------|---------------|-------------------|
| | | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation..... | 1868 | | |
| " " since " | 1869 | | |
| " " " " | 1870 | | |
| " " " " | 1871 | | |
| " " " " | 1872 | | |
| " " " " | 1873 | | |
| " " " " | 1874 | | |
| " " " " | 1875 | | |
| " " " " | 1876 | | |
| " " " " | 1877 | | |
| " " " " | 1878 | | |
| " " " " | 1879 | | |
| " " " " | 1880 | | |
| " " " " | 1881 | | |
| " " " " | 1882 | | |
| " " " " | 1883 | | |
| " " " " | 1884 | | |
| " " " " | 1885 | | |
| " " " " | 1886 | | |
| " " " " | 1887 | | |
| " " " " | 1888 | | |
| " " " " | 1889 | | |
| " " " " | 1890 | | |
| " " " " | 1891 | | |
| " " " " | 1892 | | |
| " " " " | 1893 | | |
| " " " " | 1894 | | |
| " " " " | 1895 | | |
| " " " " | 1896 | | |
| " " " " | 1897 | | |
| " " " " | 1898 | | |
| " " " " | 1899 | | |
| " " " " | 1900 | 1,459,000 00 | |
| " " " " | 1901 | | |
| " " " " | 1902 | 5,000 00 | |
| " " " " | 1903 | | |
| " " " " | 1904 | | |
| " " " " | 1905 | | |
| " " " " | 1906 | | |
| " " " " | 1907 | | |
| " " " " | 1908 | | |
| " " " " | 1909 | | |
| " " " " | 1910 | | |
| Total..... | | *1464,000 00 | |

*Included in total cost of Intercolonial Railway system, page 36.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

1 GEORGE V., A. 1911

YUKON TERRITORY WORKS.
(Stikine-Teslin Railway.)

| | | | | Year | Construction. |
|--|--|--|--|------|---------------|
| | | | | | \$ cts. |
| Government expenditure prior to Confederation..... | | | | 1868 | |
| " since " | | | | 1869 | |
| " " " | | | | 1870 | |
| " " " | | | | 1871 | |
| " " " | | | | 1872 | |
| " " " | | | | 1873 | |
| " " " | | | | 1874 | |
| " " " | | | | 1875 | |
| " " " | | | | 1876 | |
| " " " | | | | 1877 | |
| " " " | | | | 1878 | |
| " " " | | | | 1879 | |
| " " " | | | | 1880 | |
| " " " | | | | 1881 | |
| " " " | | | | 1882 | |
| " " " | | | | 1883 | |
| " " " | | | | 1884 | |
| " " " | | | | 1885 | |
| " " " | | | | 1886 | |
| " " " | | | | 1887 | |
| " " " | | | | 1888 | |
| " " " | | | | 1889 | |
| " " " | | | | 1890 | |
| " " " | | | | 1891 | |
| " " " | | | | 1892 | |
| " " " | | | | 1893 | |
| " " " | | | | 1894 | |
| " " " | | | | 1895 | |
| " " " | | | | 1896 | |
| " " " | | | | 1897 | |
| " " " | | | | 1898 | |
| " " " | | | | 1899 | |
| " " " | | | | 1900 | |
| " " " | | | | 1901 | |
| " " " | | | | 1902 | 283,323 55 |
| " " " | | | | 1903 | |
| " " " | | | | 1904 | |
| " " " | | | | 1905 | |
| " " " | | | | 1906 | |
| " " " | | | | 1907 | |
| " " " | | | | 1908 | |
| " " " | | | | 1909 | |
| " " " | | | | 1910 | |
| Total. | | | | | *283,323 55 |

*Included in Public Accounts Balance Sheet, 1902-1903, page 6.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

NATIONAL TRANSCONTINENTAL RAILWAY.

| | Year. | Construction. |
|---|-------|----------------|
| | | \$ cts. |
| Government expenditure prior to Confederation.. | | |
| " since " | 1868 | |
| " " " | 1869 | |
| " " " | 1870 | |
| " " " | 1871 | |
| " " " | 1872 | |
| " " " | 1873 | |
| " " " | 1874 | |
| " " " | 1875 | |
| " " " | 1876 | |
| " " " | 1877 | |
| " " " | 1878 | |
| " " " | 1879 | |
| " " " | 1880 | |
| " " " | 1881 | |
| " " " | 1882 | |
| " " " | 1883 | |
| " " " | 1884 | |
| " " " | 1885 | |
| " " " | 1886 | |
| " " " | 1887 | |
| " " " | 1888 | |
| " " " | 1889 | |
| " " " | 1890 | |
| " " " | 1891 | |
| " " " | 1892 | |
| " " " | 1893 | |
| " " " | 1894 | |
| " " " | 1895 | |
| " " " | 1896 | |
| " " " | 1897 | |
| " " " | 1898 | |
| " " " | 1899 | |
| " " " | 1900 | |
| " " " | 1901 | |
| " " " | 1902 | |
| " " " | 1903 | |
| " " " | 1904 | 6,249 40 |
| " " " | 1905 | 778,491 28 |
| " " " | 1906 | 1,841,269 95 |
| " " " | 1907 | 5,537,867 50 |
| " " " | 1908 | 18,910,449 41 |
| " " " | 1909 | 24,892,422 68 |
| " " " | 1910 | 19,968,126 86 |
| Total..... | | *71,934,877 08 |

*Agrees with Public Accounts Balance Sheet, 1909-1910, page 4.

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

1 GEORGE V., A. 1911

CANADA EASTERN RAILWAY.

| | Year. | Construction. |
|--|-------|---------------|
| | | \$ cts. |
| Government expenditure prior to Confederation..... | | |
| " since " | 1868 | |
| " " " | 1869 | |
| " " " | 1870 | |
| " " " | 1871 | |
| " " " | 1872 | |
| " " " | 1873 | |
| " " " | 1874 | |
| " " " | 1875 | |
| " " " | 1876 | |
| " " " | 1877 | |
| " " " | 1878 | |
| " " " | 1879 | |
| " " " | 1880 | |
| " " " | 1881 | |
| " " " | 1882 | |
| " " " | 1883 | |
| " " " | 1884 | |
| " " " | 1885 | |
| " " " | 1886 | |
| " " " | 1887 | |
| " " " | 1888 | |
| " " " | 1889 | |
| " " " | 1890 | |
| " " " | 1891 | |
| " " " | 1892 | |
| " " " | 1893 | |
| " " " | 1894 | |
| " " " | 1895 | |
| " " " | 1896 | |
| " " " | 1897 | |
| " " " | 1898 | |
| " " " | 1899 | |
| " " " | 1900 | |
| " " " | 1901 | |
| " " " | 1902 | |
| " " " | 1903 | |
| " " " | 1904 | |
| " " " | 1905 | 800,000 00 |
| " " " | 1906 | |
| " " " | 1907 | |
| " " " | 1908 | 19,000 00 |
| " " " | 1909 | |
| " " " | 1910 | |
| Total..... | | * 819,000 00 |

*Included in total cost of Intercolonial Railway system, page 36.

W. C. LITTLE,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

STATEMENT showing amount expended on Capital Account on Railways.

| Railways. | \$ cts. | \$ cts. |
|---|---------------|----------------|
| Intercolonial..... | 82,522,345 63 | |
| Cape Breton..... | 3,860,679 14 | |
| Oxford and New Glasgow..... | 1,949,283 69 | |
| Eastern Extension..... | 1,324,042 81 | |
| Drummond County..... | 1,464,000 00 | |
| Montreal and European Short Line.. | 333,942 72 | |
| Canada Eastern..... | 819,000 00 | |
| | | 92,273,073 51 |
| Carleton Branch..... | | 48,410 48 |
| Prince Edward Island..... | | 8,465,430 56 |
| Canadian Pacific..... | | 62,786,857 74 |
| Annapolis and Digby..... | | 660,683 09 |
| Yukon Territory Works (Stikine-Teslin Ry.) .. | | 283,323 55 |
| National Transcontinental..... | | 71,934,877 08 |
| Governor General's car..... | | 56,538 82 |
| Hudson Bay Railway Surveys..... | | 145,470 51 |
| Total..... | | 236,654,665 29 |
| <i>Memo. re Recapitulation—Railways.</i> | | |
| Total cost as per statement above..... | | 236,654,665 29 |
| Add amounts transferred from Capital to Consolidated Fund, Intercolonial Railway, see statement, page 36..... | | 296,872 90 |
| Agreeing with total of Construction, as per statement, page 50..... | | 236,951,538 19 |

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

1 GEORGE V., A. 1911

RECAPITULATION—GOVERNMENT RAILWAYS.

| | Year. | Construction. | Working expenses. | Revenue. |
|---|-------|-----------------|-------------------|----------------|
| | | \$ cts. | \$ cts. | \$ cts. |
| Government expenditure prior to Confederation | | 13,881,460 65 | | |
| " since | 1868 | 483,353 65 | 359,961 08 | 420,752 58 |
| " | 1869 | 282,615 18 | 387,548 47 | 455,022 76 |
| " | 1870 | 1,729,381 49 | 445,208 75 | 471,245 09 |
| " | 1871 | 2,946,930 45 | 442,993 31 | 565,713 52 |
| " | 1872 | 5,620,569 67 | 595,076 22 | 622,900 56 |
| " | 1873 | 5,763,268 81 | 1,011,892 60 | 703,458 26 |
| " | 1874 | 3,925,123 69 | 1,847,925 24 | 893,430 17 |
| " | 1875 | 5,018,427 85 | 1,581,934 24 | 886,087 42 |
| " | 1876 | 4,497,434 75 | 1,497,128 22 | 966,922 42 |
| " | 1877 | 3,209,502 16 | 1,890,268 80 | 1,285,110 27 |
| " | 1878 | 2,643,741 73 | 2,032,873 05 | 1,514,846 38 |
| " | 1879 | 2,507,053 71 | 2,233,496 34 | 1,419,955 60 |
| " | 1880 | 6,109,077 14 | 1,851,489 26 | 1,739,137 25 |
| " | 1881 | 5,577,236 73 | 2,220,421 39 | 2,200,486 25 |
| " | 1882 | 5,175,046 61 | 2,310,638 54 | 2,237,583 39 |
| " | 1883 | 11,707,619 02 | 2,636,551 70 | 2,541,205 41 |
| " | 1884 | 14,013,074 89 | 2,613,508 87 | 2,551,937 97 |
| " | 1885 | 11,224,244 54 | 2,749,710 53 | 2,624,243 07 |
| " | 1886 | 4,443,220 17 | 2,819,973 50 | 2,628,336 35 |
| " | 1887 | 1,846,887 18 | 3,152,650 40 | 2,840,747 88 |
| " | 1888 | 1,765,582 11 | 3,621,076 62 | 3,166,253 22 |
| " | 1889 | 2,709,857 37 | 3,513,063 67 | 3,167,542 67 |
| " | 1890 | 2,392,767 99 | 3,846,044 42 | 3,203,874 11 |
| " | 1891 | 1,184,317 34 | 3,949,263 73 | 3,181,888 56 |
| " | 1892 | 417,425 73 | 3,748,597 77 | 3,136,393 51 |
| " | 1893 | 712,917 44 | 3,288,629 62 | 3,262,505 62 |
| " | 1894 | 585,749 01 | 3,226,208 13 | 3,179,019 57 |
| " | 1895 | 376,814 83 | 3,197,846 17 | 3,129,450 37 |
| " | 1896 | 324,774 72 | 3,254,442 64 | 3,140,678 47 |
| " | 1897 | 204,624 31 | 3,195,959 58 | 3,060,074 38 |
| " | 1898 | 270,990 85 | 3,507,248 88 | 3,313,847 10 |
| " | 1899 | 1,112,348 47 | 3,696,612 31 | 3,940,570 11 |
| " | 1900 | 3,309,130 42 | 4,665,228 06 | 4,774,161 87 |
| " | 1901 | 3,922,989 37 | 5,739,051 54 | 5,213,381 24 |
| " | 1902 | 5,386,611 24 | 5,861,099 54 | 5,918,990 43 |
| " | 1903 | 3,083,680 86 | 6,474,134 20 | 6,584,598 77 |
| " | 1904 | 2,619,059 86 | 7,599,958 57 | 6,627,255 51 |
| " | 1905 | 6,125,481 79 | 8,906,154 35 | 7,050,892 11 |
| " | 1906 | 6,102,565 74 | 7,893,653 49 | 7,950,552 97 |
| " | 1907 | 7,174,370 17 | 6,328,745 65 | 6,509,186 49 |
| " | 1908 | 23,684,005 25 | 9,595,295 43 | 9,534,569 04 |
| " | 1909 | 29,414,227 34 | 9,764,586 51 | 8,894,420 42 |
| " | 1910 | 21,505,975 91 | 9,095,903 96 | 9,647,963 71 |
| Total | | *236,991,538 19 | 158,650,055 35 | 147,157,192 85 |

* Total amount paid on Construction.....\$236,991,538 19

Less amount received from the City of St. John, N.B., as purchase price of the
Carleton Branch Railway.....40,000 00

Total cost of Construction.....†\$236,951,538 19

† Agreeing with amount expended on Capital Account on Railways, see page 49.

W. C LITTLE,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,

OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

STATEMENT showing Miscellaneous Expenditure yearly, by the Department of
Railways and Canals.

| Year ending. | Chargeable to Capital. | CHARGEABLE TO INCOME. | | | | CHARGEABLE TO REVENUE. | | | Total Yearly Expenditure |
|--------------|------------------------------|-----------------------|--------------|------------|--------------|------------------------|-----------|--------------|--------------------------------|
| | Canals. | Canals. | Railways. | General. | Canals. | Railways. | General | | |
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | | |
| 1868. | | | | 6,305 66 | 12,000 00 | | 2,416 66 | 20,722 32 | |
| 1869. | | | | 8,367 52 | 12,000 00 | | 1,000 00 | 21,367 52 | |
| 1870. | | | | 7,853 03 | 18,698 89 | | 7,679 78 | 34,231 70 | |
| 1871. | | | | 34,773 72 | 12,018 98 | | | 46,792 70 | |
| 1872. | | | | 20,049 50 | 12,208 76 | | | 32,258 26 | |
| 1873. | | | | 36,891 74 | 12,099 44 | | 6,889 20 | 55,880 38 | |
| 1874. | | | | 40,098 84 | 12,959 25 | | 5,428 98 | 58,487 07 | |
| 1875. | | | | 35,579 24 | 12,047 43 | | 5,620 17 | 53,246 84 | |
| 1876. | | | | 42,920 10 | 86 08 | | 5,690 28 | 48,696 46 | |
| 1877. | | | | | 51 87 | 43,639 97 | | 43,691 84 | |
| 1878. | | 1,860 00 | | | 556 00 | | 34,388 59 | 36,804 59 | |
| 1879. | | | | | | | | | |
| 1880. | | 2,561 55 | | | 323 16 | | | 2,884 71 | |
| 1881. | | 2,338 41 | | | 5,535 22 | | | 7,873 63 | |
| 1882. | | | | | 9,826 23 | | | 9,826 23 | |
| 1883. | | 11,781 27 | | | 6,978 54 | | | 18,759 81 | |
| 1884. | | 7,486 62 | 62,256 58 | | 8,305 41 | | | 78,048 61 | |
| 1885. | | 16,725 47 | 11,003 38 | | 1,210 61 | | | 28,939 46 | |
| 1886. | | 20,323 62 | 10,383 59 | | 776 30 | | | 31,483 51 | |
| 1887. | | 20,873 21 | 23,545 34 | | 649 04 | | | 45,067 59 | |
| 1888. | | 34,533 07 | 22,898 90 | | 5,799 83 | | | 63,231 80 | |
| 1889. | | 10,091 87 | 16,552 64 | | 5,207 64 | | | 31,852 15 | |
| 1890. | | 16,426 69 | 50,909 74 | | 49,550 21 | | | 116,886 64 | |
| 1891. | | 16,925 31 | 16,314 41 | | 56,922 05 | | | 90,161 77 | |
| 1892. | | 6,540 49 | 19,062 51 | | 65,074 07 | | | 90,677 07 | |
| 1893. | | 8,498 41 | 4,313 73 | 28,640 93 | 63,965 54 | | | 105,418 61 | |
| 1894. | | 4,178 85 | 4,855 11 | 15,746 31 | 60,265 22 | | | 85,045 49 | |
| 1895. | | 10,695 48 | 13,221 27 | 19,304 87 | 60,769 56 | | | 103,991 18 | |
| 1896. | | 10,893 40 | 6,562 20 | 25,194 21 | 70,340 22 | | | 112,990 03 | |
| 1897. | | 2,937 47 | 5,118 99 | 25,142 90 | 62,777 12 | | 597 39 | 96,573 87 | |
| 1898. | | 1,719 69 | 8,327 96 | 28,042 10 | 56,284 42 | 1,400 00 | | 95,774 17 | |
| 1899. | | 1,318 79 | 67,005 86 | 22,085 19 | 66,850 29 | | | 157,260 13 | |
| 1900. | | 11,873 35 | 33,496 99 | 22,802 18 | 58,836 57 | | | 127,009 09 | |
| 1901. | | 12,267 99 | 28,658 78 | 33,986 68 | 61,938 61 | | | 136,852 06 | |
| 1902. | | 3,658 23 | 21,752 58 | 34,138 50 | 65,770 65 | | | 125,319 96 | |
| 1903. | | 2,491 84 | 15,570 43 | 35,398 00 | 63,175 19 | | | 116,635 46 | |
| 1904. | | 3,730 79 | 85,353 17 | 36,262 32 | 66,067 30 | | | 191,413 58 | |
| 1905. | | 1,498 14 | 97,507 00 | 38,660 52 | 64,515 07 | | | 202,180 73 | |
| 1906. | | 9,160 44 | 99,018 80 | 37,484 64 | 62,171 45 | | | 207,835 33 | |
| 1907. | | 9,687 55 | 92,115 62 | 34,183 75 | 66,251 27 | | | 202,238 19 | |
| 1908. | 14,999 70 | 24,760 08 | 178,266 39 | 45,115 99 | 105,518 99 | | | 368,661 15 | |
| 1909. | 5,034 00 | 28,819 54 | 604,483 02 | 20,912 04 | 106,065 87 | | | 765,314 47 | |
| 1910. | | 29,421 06 | 212,117 54 | 4,706 79 | 111,755 68 | | | 358,001 07 | |
| | 20,033 70 | 346,078 68 | 1,810,672 53 | 740,647 27 | 1,594,204 03 | 45,039 97 | 69,711 05 | 4,626,387 23 | |

W. C. LITTLE,

Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

1 GEORGE V., A. 1911

RECAPITULATION—RAILWAYS AND CANALS, TO MARCH 31, 1910.

EXPENDITURE.

Chargeable to Capital Account—

| | |
|--|-------------------------|
| Railways, <i>see</i> Statement page 49 | \$ 236,654,665 29 |
| Canals " " 31 and 51 | 96,982,449 37 |
| | <hr/> \$ 333,637,114 66 |

Chargeable to Consolidated Fund—

| | |
|---|------------------|
| *Railway Subsidies as per Statement page 54 to 63 | \$ 41,450,116 28 |
|---|------------------|

Income Account—

| | |
|--|--------------------|
| Intercolonial Railway <i>see</i> page 35 | \$ 280,000 00 |
| Add transferred from Capital " 36 | 296,872 90 |
| Railways " 51 | 1,810,672 53 |
| Canals " 31 | 6,221,471 41 |
| " " 51 | 346,078 68 |
| General, Railways and Canals " 51 | 740,647 27 |
| | <hr/> 9,695,742 79 |

Revenue Account—

| | |
|---|----------------------|
| Canals—Operating and maintaining staff, <i>see</i> page 31. | \$ 11,695,850 15 |
| Canals—Repairs, <i>see</i> page 31 | 9,488,902 94 |
| " " " 51 | 1,594,204 03 |
| Railways—Working expenses, <i>see</i> page 50 | 158,650,055 35 |
| " " " 51 | 45,039 97 |
| General—Railways and Canals " 51 | 69 711 05 |
| | <hr/> 181,543,763 49 |
| | <hr/> 232,689,622 56 |

Total expenditure on Railways and Canals

| | |
|--|-------------------|
| | \$ 566,326,737 22 |
|--|-------------------|

EXPENDITURE AS ABOVE SEPARATED AS BETWEEN RAILWAYS AND CANALS.

RAILWAYS.

| | |
|-------------------------|-------------------------|
| Capital Account | \$ 236,654,665 29 |
| Consolidated Fund | 202,532,757 03 |
| | <hr/> \$ 439,187,422 32 |

CANALS.

| | |
|-------------------------|-------------------------|
| Capital Account | \$ 96,982,449 37 |
| Consolidated Fund | 29,346,507 21 |
| | <hr/> \$ 126,328,956 58 |

Total

| | |
|--|-------------------|
| | \$ 565,516,378 90 |
|--|-------------------|

GENERAL, COMMON TO BOTH.

| | |
|-------------------------|------------|
| Consolidated Fund | 810,358 32 |
|-------------------------|------------|

Total expenditure on Railways and Canals

| | |
|--|-------------------|
| | \$ 566,326,737 22 |
|--|-------------------|

REVENUE, SEPARATED AS BETWEEN RAILWAYS AND CANALS.

| | |
|--|-------------------|
| Railways—Revenue received from July 1, 1867, to March 31, 1910 (for details <i>see</i> page 50). | \$ 147,157,192 85 |
| Canals " " " " (" " 31). | 14,156,354 14 |

Total revenue, Railways and Canals

| | |
|--|-------------------|
| | \$ 161,313,546 99 |
|--|-------------------|

* This amount does not include the subsidy of \$25,000,000 to the Canadian Pacific Railway, nor the amount \$660,683 09 expended on the Annapolis and Digby Railway, both of which are included in Capital Account, nor the annual payment of \$119,700 to the Provincial Government of Quebec, being interest at the rate of 5 per cent on the sum of \$2,394,000 up to 1905, granted by 47 Vict., cap. 8 (1884) and the annual payment of \$107,730 being interest at the rate of 4½ per cent since and including 1905 on the said sum of \$2,394,000 for the line between Ottawa and Quebec which sum was transferred to the Public Debt as a liability, and is dealt with by the Finance Department (*see* Public Accounts, 1898-1910, and page 79, 1908).

W. C. LITTLE,
Accountant.

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

STATEMENT

SHOWING SUBSIDIES VOTED FOR RAILWAYS AS TO WHICH CONTRACTS
HAVE BEEN ENTERED INTO AND PAYMENTS MADE FROM JULY 1,
1883 TO MARCH 31, 1910.

1 GEORGE V., A. 1911

STATEMENT showing subsidies voted for Railways as to which Contracts

| SUBSIDIES VOTED. | | RAILWAYS. | | July 1, 1883, to June 30, 1903. |
|---|--|---|--|---------------------------------------|
| Authority. | Amount. | | | |
| | \$ cts. | | | \$ cts |
| 46 Vic., chap. 25 } 53 " " 2 } 45 " " 11 } 46 " " 25 } 48-49 " " 59 } 49 " " 10 } 50-1 " " 24 } 51 " " 3 } 52 " " 3 } 53 " " 2 } 54-5 " " 8 } 57-8 " " 4 } 46 " " 25 } 49 " " 10 } 50-1 " " 24 } 52 " " 3 } 55-6 " " 5 } 47 " " 8 } 51 " " 3 } 53 " " 2 } 46 " " 25 } 47 " " 8 } 50-1 " " 24 } 47 " " 8 } 49 " " 10 } 52 " " 3 } 53 " " 2 } 56 " " 2 } 57-8 " " 4 } * " " * } 47 " " 8 } 45 " " 14 } 46 " " 26 } 53 " " 2 } 47 " " 8 } 48-9 " " 59 } 49 " " 10 } 48-9 " " 59 } 51 " " 3 } 57-8 " " 4 } 62-3 " " 7 } 47 " " 8 } 51 " " 3 } 53 " " 2 } 48-9 " " 59 } 53 " " 2 } 48-9 " " 59 } 50-1 " " 24 } 51 " " 3 } 46 " " 25 } 51 " " 3 } 47 " " 8 } 48-9 " " 59 } 49 " " 10 } 50-1 " " 24 } 47 " " 6 } 47 " " 8 } 46 " " 25 } 47 " " 8 } 52 " " 3 } | 156,800 00 384,000 00 80,000 00 96,000 00 186,295 00 28,800 00 96,000 00 64,000 00 30,000 00 5,250 00 44,800 00 89,600 00 70,000 00 12,800 00 32,000 00 64,000 00 272,000 00 41,000 00 24,000 00 115,200 00 76,800 00 32,000 00 32,000 00 57,600 00 22,400 00 48,000 00 48,000 00 70,400 00 * 48,000 00 660,000 00 660,000 00 128,000 00 19,200 00 32,000 00 24,439 84 140,800 00 35,200 00 * 60,342 00 288,000 00 72,000 00 40,000 00 30,000 00 64,000 00 9,600 00 38,400 00 44,252 82 22,400 00 96,000 00 38,400 00 180,000 00 750,000 00 96,000 00 320,000 00 300,000 00 | International Railway, Quebec | | |

SESSIONAL PAPER No. 20

have been entered into and Payments made up to March 31, 1910.

PAYMENTS.

| 1903-1904. | 1904-1905. | 1905-1906. | 1906-1907. | 1907-1908. | 1908-1909. | 1909-1910. | Total March 31, 1910. |
|------------|------------|------------|------------|------------|------------|------------|-----------------------------|
| \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| | | | | | | | 156,800 00 |
| | | 86,016 00 | 67,712 00 | 73,472 00 | ..... | ..... | 1,233,943 50 |
| | | | | | | | 208,732 80 |
| | | | | | | | 193,578 00 |
| | | | | | | | 224,000 00 |
| | | | | 256,870 40 | 55,449 60 | 164,172 29 | 1,034,280 60 |
| | | | | | | | 48,000 00 |
| | | | | | | | 1,320,000 00 |
| | | | | | | | 374,839 84 |
| | | | | 55,638 69 | ..... | ..... | 403,980 69 |
| | | | | | | | 93,757 57 |
| | | | | | | | 103,600 00 |
| | | | | | | | 82,652 82 |
| | | | | | | | 22,400 00 |
| | | | | | | | 282,355 20 |
| | | | | | | | 750,000 00 |
| | | | | | | | 96,000 00 |
| | | | | | | | 620,000 00 |
| | | 86,016 00 | 67,712 00 | 385,981 09 | 55,449 60 | 164,172 29 | 248,921 02 |

STATEMENT showing Subsidies Voted for Railways as to which Contracts have

| SUBSIDIES VOTED. | | | RAILWAYS. | | July 1, 1883 to June 30, 1903. | |
|----------------------|----------|----|-----------------------|------|---|------------|
| Authority. | | | Amount. | | | |
| | | | \$ | cts. | \$ | cts. |
| | | | Brought forward | | 6,489,590 04 | |
| 48-9 | Vic., c. | 59 | 118,400 | 00 | New Brunswick and Prince Edward Island, Ry. N. B.. | 113,440 00 |
| 50-1 | " | 24 | 217,600 | 00 | Laurentian Railway, formerly St. Lawrence, Lower Laurentian and Saguenay Ry., Quebec | 217,600 00 |
| 49 | " | 10 | 11,200 | 00 | L'Assomption Railway, Quebec..... | 11,200 00 |
| 49 | " | 10 | 32,000 | 00 | } Great Eastern Railway, Quebec..... | 40,345 00 |
| 50-1 | " | 24 | 96,000 | 00 | | |
| 56 | " | 2 | 64,000 | 00 | | |
| 53 | " | 2 | 37,500 | 00 | | |
| 17 | " | 8 | 160,000 | 00 | } Irondale, Bancroft and Ottawa Railway, Ontario..... | 144,000 00 |
| 52 | " | 3 | | | | |
| 49 | " | 10 | 96,000 | 00 | } Buctouche and Moncton Railway, N.B. | 101,600 00 |
| 50-1 | " | 24 | 6,400 | 00 | | |
| 47 | " | 8 | 51,200 | 00 | } Albert Southern Railway, N. B..... | 50,460 00 |
| 52 | " | 3 | | | | |
| 56-1 | " | 24 | 65,200 | 00 | } Lake Temiscamingue Colonization Railway, Quebec.. | 310,335 95 |
| 57-8 | " | 4 | 274,940 | 00 | | |
| 49 | " | 10 | 38,400 | 00 | } Joggins Railway, N.S. | 37,500 00 |
| 50-1 | " | 24 | 4,000 | 00 | | |
| 45 | " | 14 | 240,000 | 00 | } Témiscouata Railway, N.B., and Quebec..... | 645,950 00 |
| 48-9 | " | 58 | 258,000 | 00 | | |
| 51 | " | 3 | 100,000 | 00 | | |
| 53 | " | 2 | 51,200 | 00 | } Leamington and Saint Clair Railway, Ontario..... | 51,200 00 |
| 48-9 | " | 59 | 44,800 | 00 | | |
| 50-1 | " | 24 | 6,400 | 00 | | |
| 49 | " | 10 | 16,000 | 00 | Toronto, Grey and Bruce Railway, Ontario... .. | 14,656 00 |
| 50-1 | " | 24 | 22,400 | 00 | Dominion Lime Co., Quebec.. .. | 15,360 00 |
| 49 | " | 10 | 256,000 | 00 | { West Ontario Pacific Railway and Ontario and Quebec Railway.. .. | 256,000 00 |
| 53 | " | 2 | | | | |
| 50-1 | " | 24 | 96,000 | 00 | } Drummond County Railway, Quebec | 423,936 00 |
| 52 | " | 3 | 14,400 | 00 | | |
| 53 | " | 2 | 76,800 | 00 | | |
| 57-8 | " | 4 | 96,000 | 00 | } Brockville, Westport and Sault Ste. Marie Ry., Ont.. | 105,200 00 |
| 48-9 | " | 59 | 128,000 | 00 | | |
| 53 | " | 2 | | | | |
| 54-5 | " | 8 | 64,000 | 00 | } Montreal and Lake Maskinongé Railway, Québec.... | 41,280 00 |
| 57-8 | " | 4 | | | | |
| 49 | " | 10 | 32,000 | 00 | } South Norfolk Railway, Ontario | 54,400 00 |
| 53 | " | 2 | 10,200 | 00 | | |
| 50-1 | " | 24 | 54,400 | 00 | Guelph Junction Railway, Ontario | 46,000 00 |
| 50-1 | " | 24 | 51,200 | 00 | } Belleville and North Hastings Railway, Ontario..... | 21,888 00 |
| 48-9 | " | 59 | 22,400 | 00 | | |
| 49 | " | 10 | 108,800 | 00 | } Hereford Railway, Quebec..... | 155,200 00 |
| 49 | " | 10 | | | | |
| 52 | " | 3 | 48,000 | 00 | } Lake Erie and Detroit River Railway, Ontario... .. | 475,851 00 |
| 50-1 | " | 24 | 118,400 | 00 | | |
| 55-6 | " | 5 | 224,000 | 00 | } Beauharnois Junction Railway, Quebec..... | 62,400 00 |
| 62-3 | " | 7 | * | | | |
| 50-1 | " | 24 | 62,400 | 00 | } St. Catharines and Niagara Central Railway, Ontario | 38,400 00 |
| 56 | " | 2 | 138,400 | 00 | | |
| 50-1 | " | 24 | 108,000 | 00 | | |
| 55-6 | " | 5 | 108,800 | 00 | } Fredericton and St. Mary's Railway Bridge Co., N. B.. | 30,000 00 |
| 57-8 | " | 4 | 30,000 | 00 | | |
| 52 | " | 3 | 9,600 | 00 | Harvey Branch Railway Co., N.-B | 5,553 57 |
| 50-1 | " | 24 | 240,000 | 00 | } Nova Scotia Central Railway Co., N. S..... | 235,200 00 |
| 55-6 | " | 5 | | | | |
| 61 | " | 1 | 44,800 | 00 | Cumberland Railway and Coal Co., N. S..... | 39,850 00 |
| 50-1 | " | 24 | 19,200 | 00 | Pontiac and Renfrew Railway Co., Ontario..... | 13,600 00 |
| 52 | " | 3 | 54,400 | 00 | } Thousand Islands Railway Co., Ontario..... | 29,840 00 |
| 52 | " | 3 | * | | | |
| 63-4 | " | 8 | | | | |
| Carried forward..... | | | | | 10,277,835 56 | |

SESSIONAL PAPER No. 20

been entered into and Payments made up to March 31, 1910—*Continued.*

| PAYMENTS. | | | | | | | Total March 31, 1910 |
|-----------|----------|-----------|------------|------------|-----------|------------|----------------------------|
| 1903-04. | 1904-05. | 1905-06. | 1906-07. | 1907-08. | 1908-09. | 1909-10. | |
| \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| | | 86,016 00 | 67,712 00 | 385,981 09 | 55,449 60 | 164,172 29 | 248,921 02 |
| | | | | | | | 113,440 00 |
| | | | | | | | 217,600 00 |
| | | | | | | | 11,200 00 |
| | | | | | | | 40,345 00 |
| | | | | | | | 144,000 00 |
| | | | | | | | 101,600 00 |
| | | | | | | | 50,460 00 |
| | | | | | | | 310,335 95 |
| | | | | | | | 37,500 00 |
| | | | | | | | 645,950 00 |
| | | | | | | | 51,200 00 |
| | | | | | | | 14,656 00 |
| | | | | | | | 15,360 00 |
| | | | | | | | 256,000 00 |
| | | | | | | | 423,936 00 |
| | | | 35,600 00 | ..... | ..... | ..... | 140,800 00 |
| | | | | | | | 41,280 00 |
| | | | | | | | 54,400 00 |
| | | | | | | | 46,000 00 |
| | | | | | | | 21,888 00 |
| | | | | | | | 155,200 00 |
| | | | | | | | 475,851 00 |
| | | | | | | | 62,400 00 |
| | | | | | | | 38,400 00 |
| | | | | | | | 30,000 00 |
| | | | | | | | 5,553 57 |
| | | | | | | | 235,200 00 |
| | | | | | | | 39,850 00 |
| | | | | | | | 13,600 00 |
| | | | | | | | 29,840 00 |
| | | 86,016 00 | 103,312 00 | 385,981 09 | 55,449 60 | 164,172 29 | 11,072,766 54 |

1 GEORGE V., A. 1911

STATEMENT showing the subsidies voted for Railways as to which Contracts have

| SUBSIDIES VOTED. | | RAILWAYS. | | July 1, 1883, to June 30, 1903. |
|------------------|-----------|---|--|---------------------------------------|
| Authority. | Amount. | | | |
| | \$ c. | | | \$ cts. |
| | | Brought forward..... | | 10,277,835 56 |
| 52 Vic., chap. 3 | 96,000 00 | Quebec, Montmorency and Charlevoix, Ry. Co. Quebec | | 96,000 00 |
| 56 " | 3 | | | |
| 52 " | 3 | 375,000 00 St. Clair Frontier Tunnel Co., Ontario..... | | 375,000 00 |
| 50-1 " | 24 | 57,600 00 Brantford, Waterloo and Lake Erie, Railway, Ontario | | 57,600 00 |
| 57-8 " | 4 | | | |
| 51 " | 3 | 287,200 00 Port Arthur, Duluth and Western Railway, Ontario... | | 271,200 00 |
| 53 " | 2 | | | |
| 50-1 " | 24 | 192,000 00 Montreal and Ottawa Railway, Ontario..... | | 192,000 00 |
| 53 " | 2 | | | |
| 54-5 " | 8 | | | |
| 57-8 " | 4 | | | |
| 50-1 " | 24 | 44,800 00 Cornwallis Valley Railway, N.S..... | | 44,800 00 |
| 52 " | 3 | | | |
| 52 " | 3 | 320,000 00 } Ottawa, Northern and Western Ry., Quebec, form- | | |
| 57-8 " | 6 | | | |
| 60-1 " | 4 | | | |
| 47 " | 8 | 64,000 00 } erly Ottawa and Gatineau Railway..... | | 292,320 00 |
| 51 " | 3 | | | |
| 52 " | 3 | 83,612 54 } Central Railway, N.B..... | | 226,012 54 |
| 53 " | 2 | | | |
| 57-8 " | 4 | | | |
| 61 " | 1 | | | |
| 62-3 " | 1 | | | |
| 53 " | 2 | 361,270 00 Montreal and Western Railway, Quebec... | | 361,270 00 |
| 52 " | 3 | 128,000 00 Parry Sound Colonization Railway, Ontario..... | | 152,800 00 |
| 57-8 " | 4 | 64,000 00 } Shuswap and Okanagan, Railway, B.C..... | | 163,200 00 |
| 52 " | 3 | | | |
| 54-5 " | 8 | 89,600 00 } Tobique, Valley Railway N. B ... | | 134,016 00 |
| 53 " | 2 | | | |
| 55-6 " | 5 | 9,600 00 | | |
| 53 " | 2 | 112,000 00 Columbia and Kootenay Railway, B.C..... | | 88,800 00 |
| 53 " | 2 | 35,200 00 Waterloo Junction Railway, Ontario..... | | 32,800 00 |
| 53 " | 2 | 99,200 00 Orford, Mountain Railway, Quebec..... | | 84,800 00 |
| 53 " | 2 | 57,600 00 } St. Lawrence and Adirondack Railway, Quebec..... | | 149,481 60 |
| 55-6 " | 5 | | | |
| 55-6 " | 5 | 25,024 00 | | |
| 56 " | 2 | *40,000 00 New Glasgow Iron, Coal and Railway Co., N.S..... | | 39,840 00 |
| 57-8 " | 4 | 102,400 00 } United Counties Railway, Quebec..... | | 188,816 00 |
| 55-6 " | 5 | 102,400 00 | | |
| 55-6 " | 5 | *21,600 00 Philipsburg Junction Ry. Quarry Company, Quebec.... | | 23,712 00 |
| 55-6 " | 5 | *430,400 00 Ottawa, Arnprior and Parry Sound Railway, Ontario.. | | 779,712 00 |
| 56 " | 2 | 67,200 00 | | |
| 57-8 " | 4 | 38,400 00 } Montfort Colonization Railway, Quebec..... | | 167,440 00 |
| 60-61 " | 4 | 66,000 00 | | |
| 55-6 " | 5 | 48,000 00 | | |
| 57-8 " | 4 | 48,000 00 } Lotbinière and Mégantic Railway, Quebec... .. | | 96,000 00 |
| 56 " | 2 | 48,000 00 | | |
| 55-6 " | 5 | 80,000 00 Grand Trunk, Georgian Bay and Lake Erie Ry., Ont... | | 39,744 00 |
| 57-8 " | 4 | 121,600 00 Canadian Pacific Ry., B.C., Revelstoke to Arrow Lake. | | 80,000 00 |
| 55-7 " | 5 | 89,600 00 Nakusp and Slocan, Railway, B.C..... | | 117,760 00 |
| 56 " | 2 | 22,400 00 Dominion Coal Company, N.S..... | | 87,808 00 |
| 57-8 " | 4 | *51,200 00 Oshawa Railway and Navigation Company, Ontario... | | 22,400 00 |
| 56 " | 2 | *11,200 00 Tilsonburg, Lake Erie and Pacific Railway, Ontario.... | | 113,431 48 |
| 57-8 " | 4 | *38,400 00 St. Stephen's and Milltown Railway, N.B..... | | 14,848 00 |
| 57-8 " | 4 | 9,000 00 Gulf Shore Railway Company, N.B..... | | 53,699 20 |
| 56 " | 2 | 32,000 00 Cap de la Madeleine Railway, Quebec..... | | 7,424 00 |
| * " | * | Coast line of Nova Scotia, now Halifax and Yarmouth R. | | 150,400 00 |
| * " | * | Ottawa and New York Railway Company, Ontario.... | | 262,384 00 |
| | | Carried forward..... | | 15,276,074 38 |

SESSIONAL PAPER No. 20

been entered into and Payments made up to March 31, 1910—*Continued.*

| PAYMENTS. | | | | | | | Total March 31, 1910. |
|------------|-----------|------------|------------|------------|-----------|------------|-----------------------------|
| 1903-04. | 1904-05. | 1905-06. | 1906-07. | 1907-08. | 1908-09. | 1909-10. | |
| \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| | | 86,016 00 | 103,312 00 | 385,981 00 | 55,449 60 | 164,172 29 | 11,072,766 54 |
| | | | | | | | 96,000 00 |
| | | | | | | | 375,000 00 |
| | | | | | | | 57,600 00 |
| | | | | | | | 271,200 00 |
| | | | | | | | 192,000 00 |
| | | | | | | | 44,800 00 |
| 118,368 00 | | | | 4,243 20 | | | 414,931 20 |
| | | | | | | | 226,012 54 |
| | | | | | | | 361,270 00 |
| | | | | | | | 152,800 00 |
| | | | | | | | 163,200 00 |
| | | | | | | | 134,016 00 |
| | | | | | | | 88,800 00 |
| | | | | | | | 32,800 00 |
| | 38,250 00 | 45,764 50 | | 24,123 00 | | | 192,942 50 |
| | | | | | | | 149,481 60 |
| | | | | | | | 39,840 00 |
| | | | | | | | 188,816 00 |
| | | | | | | | 23,712 00 |
| | | | | | | | 779,712 00 |
| | | | | | | | 167,440 00 |
| | | | | | | | 96,000 00 |
| | | | | | | | 39,744 00 |
| | | | | | | | 80,000 00 |
| | | | | | | | 117,760 00 |
| | | | | | | | 87,808 00 |
| | | | | | | | 22,400 00 |
| 4,000 00 | | | | | | | 117,431 48 |
| | | | | | | | 14,848 00 |
| | | | | | | | 53,699 20 |
| | | | | | | | 7,424 00 |
| | | | | | | | 30,720 00 |
| 9,600 00 | | | | | | | 160,000 00 |
| | | | | | | | 262,384 00 |
| 131,968 00 | 38,250 00 | 131,780 50 | 103,312 00 | 414,352 29 | 55,449 60 | 164,172 29 | 16,323,359 06 |

1 GEORGE V., A. 1911

STATEMENT showing Subsidies Voted for Railways as to which Contracts have

| SUBSIDIES VOTED. | | RAILWAYS. | | July 1, 1883, to June 30, 1903. |
|------------------|--------------|--|--|---------------------------------------|
| Authority. | Amount. | | | |
| | \$ c. | | | \$ cts. |
| | | Brought forward | | 15,276.074 58 |
| 60-61 Vic., c. 5 | 3,630,000 00 | Canadian Pacific Railway Co., B.C. (Crow's nest Pass). | | 3,381,774 00 |
| 60-61 " 4 | 500,000 00 | Grand Trunk Ry. Co., 'Victoria Jubilee Bridge,' Que. | | 500,000 00 |
| 63 " 3 | | International Ry. of New Brunswick, formerly Resti- | | |
| " " | * | gouche and Western Ry. Co | | 46,930 00 |
| " " | * | East Richelieu Railway Co., Quebec | | 69,952 00 |
| " " | * | South Shore Railway (Quebec, Montreal and Southern) | | 119,290 19 |
| " " | * | Pembroke Southern Railway, Ontario. | | 64,000 00 |
| " " | * | Massawippi Valley Railway Co., Quebec | | 5,376 00 |
| " " | * | Inverness and Richmond Co., N.S., now Inverness Ry. | | |
| " " | * | and Coal Co. | | 311,375 53 |
| " " | * | Canadian Northern Railway Co., Ontario, Manitoba | | |
| " " | * | and N.W.T. | | 1,534,976 00 |
| " " | * | Canadian Pacific Railway Co. (Pijestone Branch). | | 160,000 00 |
| " " | * | Central Ontario Railway Co., Ontario. | | 67,200 00 |
| " " | * | Midland Railway Co., N.S. | | 360,450 30 |
| 62-3 Vic., c. 7 | 1,000,000 00 | Quebec Bridge Co., Quebec. | | 374,353 33 |
| 63-4 " 8 | | St. Mary River Railway Co., N.W.T. | | 75,000 00 |
| " " | * | Pontiac and Pacific and Ottawa and Gatineau Ry. | | |
| 60-1 Vic., c. 4 | 212,500 00 | Co. (Interprovincial Bridge over Ottawa River)... | | 212,500 00 |
| 63-4 " 2 | | Atlantic and Lake Superior Railway Quebec | | 67,153 98 |
| 1 Ed. VII, c. 7 | * | Montreal and Province Line Railway, Quebec. | | 58,560 00 |
| 1 " 7 | * | York and Carleton Railway, N.B. | | 18,336 00 |
| 62-3 Vic., c. 7 | * | Algoma Central and Hudson Bay Railway, Ontario... | | 583,536 00 |
| 62-3 " 7 | | Cape Breton Extension Railway, N.S. | | 65,280 00 |
| 63-4 " 8 | * | Can. Pacific Ry. Co. (Kootenay and Arrowhead Br'ch). | | 42,771 00 |
| 1 Ed. VII, c. 7 | * | " (Selkirk Branch). | | 83,200 00 |
| " " | * | " (Dymont Branch). | | 23,336 00 |
| " " | * | " (Waskada Branch). | | 50,480 00 |
| " " | * | Manitoulin and North Shore Railway Co., Ont. | | 32,000 00 |
| " " | * | Bay of Quinté Railway Ont. | | 19,200 00 |
| " " | * | Bruce Mines and Algoma Railway, Ont. | | 28,800 00 |
| " " | * | Magnetawan River Railway Co., Ont. | | 3,552 00 |
| " " | * | The Canadian Northern Quebec Ry., formerly Chateau- | | |
| " " | * | guay and Northern Ry., Quebec. | | |
| " " | * | Canadian Pacific Ry. Co. (Pheasant Hill Branch). | | |
| " " | * | Halifax and Southwestern Railway Co., N.S. | | |
| " " | * | Northern Colonization Railway Co., Quebec. | | |
| " " | * | New Brunswick Coal and Railway Co., N.B. | | |
| " " | * | Schomberg and Aurora Railway Co., Ont. | | |
| " " | * | Lindsay, Bobcaygeon and Pontypool Ry. Co., Ont | | |
| " " | * | Middleton and Victoria Beach Ry. Co., N.S. | | |
| " " | * | Beersville Coal and Railway Co., N.B. | | |
| 3 Ed. VII, c. 57 | * | Nicola, Kamloops and Similkameen Coal and Ry. Co. | | |
| 4 " 34 | * | Canadian Pacific Railway (Staynerville Branch), | | |
| 6 " 43 | * | Klondike Mines Railway. | | |
| 6 " 43 | * | Kettle River Valley Ry. Co., B.C. | | |
| 6 " 43 | * | Colchester Coal and Ry. Co., N.S. | | |
| 3 " 57 | * | Minudie Coal Co., N.S. | | |
| 6 " 43 | * | Atlantic, Quebec and Western Ry. Co., Quebec. | | |
| 6 " 43 | * | Napierville Jct. Ry. Co., Quebec. | | |
| 6-7 " 40 | * | Edmonton, Yukon and Pacific Ry. Co., Alberta. | | |
| 6-7 " 40 | * | Canadian Northern Ontario Ry. Co., formerly James | | |
| | | Bay Ry. Co., Ontario | | |
| | | Carried forward. | | 23,657,402 71 |

† Of this amount \$16,164.43 were in connection with subsidy to Montreal and Sorel Railway.

SESSIONAL PAPER No. 20

been entered into and Payments made up to March 31, 1910 — *Continued.*

| PAYMENTS. | | | | | | | Total March 31, 1910. |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------------------|
| 1903-1904. | 1904-1905. | 1905-1906. | 1906-1907. | 1907-1908. | 1908-1909. | 1909-1910. | |
| \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 131,968 00 | 38,250 00 | 131,780 50 | 103,312 00 | 414,352 29 | 55,449 60 | 164,172 29 | 16,323,359 06 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3,401,726 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 500,000 00 |
| 30,208 00 | ..... | 50,070 07 | 51,200 00 | ..... | 189,849 60 | 187,494 40 | 555,752 07 |
| 80,494 16 | 3,456 46 | ..... | ..... | ..... | 43,414 55 | ..... | 69,952 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | 184,320 00 | +130,975 36 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 64,000 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 5,376 00 |
| 57,170 44 | ..... | ..... | ..... | ..... | ..... | ..... | 368,545 97 |
| 374,156 00 | ..... | ..... | ..... | ..... | ..... | ..... | 1,909,132 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 160,000 00 |
| 1,750 00 | ..... | ..... | 4,967 70 | 76,861 36 | 35,404 64 | ..... | 179,466 00 |
| ..... | ..... | ..... | ..... | 31,892 40 | ..... | ..... | 399,060 40 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 374,353 33 |
| 40,960 00 | 32,134 00 | ..... | ..... | ..... | ..... | ..... | 148,094 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 212,500 00 |
| 37,000 00 | 42,336 86 | ..... | ±1,521 82 | ..... | ..... | ..... | ±144,969 02 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 58,560 00 |
| ..... | ..... | ..... | ..... | 14,560 00 | ..... | ..... | 32,896 00 |
| ..... | 341,440 00 | ..... | ..... | ..... | ..... | ..... | 924,976 00 |
| 117,120 00 | ..... | ..... | ..... | ..... | ..... | 14,400 00 | 196,800 00 |
| 17,842 85 | 4,176 15 | 89,076 00 | ..... | ..... | ..... | ..... | 153,866 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 83,200 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 22,336 00 |
| 13,520 00 | ..... | ..... | ..... | ..... | ..... | ..... | 64,000 00 |
| 49,920 00 | ..... | ..... | 72,602 45 | ..... | ..... | ..... | 32,000 00 |
| ..... | 25,120 00 | ..... | ..... | ..... | ..... | ..... | 141,722 45 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 53,920 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3,552 00 |
| 191,595 00 | ..... | 116,000 00 | 84,224 75 | ..... | ..... | ..... | 391,819 75 |
| 378,624 00 | 56,576 00 | ..... | ..... | ..... | ..... | ..... | 435,200 00 |
| 185,422 00 | 291,842 00 | 176,512 00 | 268,107 20 | 316,567 73 | ..... | ..... | 1,238,450 93 |
| 58,384 00 | ..... | 75,376 00 | ..... | ..... | 68,320 00 | 153,120 00 | 355,200 00 |
| 48,000 00 | ..... | ..... | ..... | ..... | ..... | ..... | 48,000 00 |
| 46,144 00 | ..... | ..... | ..... | ..... | ..... | ..... | 46,144 00 |
| ..... | 185,173 06 | ..... | ..... | ..... | ..... | ..... | 185,173 06 |
| ..... | 47,789 00 | 50,303 80 | 27,667 20 | ..... | ..... | ..... | 125,760 00 |
| ..... | 20,736 00 | ..... | ..... | ..... | ..... | ..... | 20,736 00 |
| ..... | ..... | 110,592 00 | ..... | 190,208 00 | ..... | ..... | 300,800 00 |
| ..... | ..... | ..... | 9,600 00 | 3,424 00 | ..... | ..... | 13,024 00 |
| ..... | ..... | ..... | 96,000 00 | 101,184 00 | ..... | ..... | 197,184 00 |
| ..... | ..... | ..... | ..... | 97,771 52 | ..... | ..... | 97,771 52 |
| ..... | ..... | ..... | ..... | 12,800 00 | ..... | ..... | 12,800 00 |
| ..... | ..... | ..... | ..... | 18,544 00 | ..... | ..... | 18,544 00 |
| ..... | ..... | ..... | ..... | 64,000 00 | 92,672 00 | 208,896 00 | 365,568 00 |
| ..... | ..... | ..... | ..... | 173,440 00 | ..... | ..... | 173,440 00 |
| ..... | ..... | ..... | ..... | 91,200 00 | ..... | ..... | 91,200 00 |
| ..... | ..... | 651,264 00 | 420,608 00 | 244,224 00 | 556,864 00 | 250,982 40 | 2,123,942 40 |
| 1,860,278 45 | 1,089,029 53 | 1,450,974 37 | 1,136,767 48 | 1,851,029 30 | 1,041,974 39 | 1,163,385 09 | 32,087,456 23 |

" Amount actually paid after deductions amounting to \$1,521.82 made in 1905-06 (being for refunds, duplicate claims, &c.) from the total of \$146,490.84, previously reported, for which cheques had issued.

‡ Refunds for duplicate claims and claims still unpaid.

1 GEORGE V., A. 1911

STATEMENT showing Subsidies voted for Railways as to which Contracts

| SUBSIDIES VOTED. | | RAILWAYS. | July 1, 1883 to June 30, 1903. |
|-------------------|-----------------------------------|--|--------------------------------------|
| Authority. | Amount. | | |
| | \$ cts. | | \$ cts. |
| | | Brought forward..... | 23,657,402 71 |
| 7-8 Ed. VII, c.63 | * | Maritime Coal and Ry. Co..... | |
| 7-8 " 63 | * | St. Mary and Western Ontario Ry. Co..... | |
| 7-8 " 63 | * | North Shore Ry. Co. | |
| 7-8 " 63 | * | St. Maurice Valley Ry. Co..... | |
| 7-8 " 63 | * | Grand Trunk Pacific Ry. Co..... | |
| 6 " 43 | * | Canadian Pacific Ry. Co., Teulon to Icelandic River .. | |
| 7-8 " 63 | * | Canadian Pacific Ry. Co., Moosejaw northwesterly .. | |
| | | | 23,657,402 71 |
| | 186,600 annually for 20 years. | Atlantic and Northwestern Railway..... | 2,425,800 00 |
| 37 Vic., ch. 14 | 1,525,250 00 | Canada Central Railway | 1,525,250 00 |
| 46 " 2 | | | |
| 47 " 8 | 1,500,000 00 | Canadian Pacific, extension..... | 1,500,000 00 |
| 48-9 " 58 | | | |
| | | Totals..... | 29,295,052 71 |

* 60-61 Victoria, Cap. 4, 62-63 Victoria, Cap. 7, 63-64 Victoria, Cap. 8, 1 Edward VII., Cap. 7, 40, and 7-8 Edward VII., Cap. 63, authorize \$3,200 per mile subsidy if the cost does not average of the average cost of the mileage subsidized as is in excess of \$15,000 per mile, such subsidy not

DEPARTMENT OF RAILWAYS AND CANALS,
OTTAWA, July 23, 1910.

SESSIONAL PAPER No. 20

have been entered into and Payments made up to March 31, 1910 — *Concluded.*

| PAYMENTS. | | | | | | | Total March 31, 1910. |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------------------|
| 1903-1904. | 1904-1905 | 1905-1906. | 1906-1907. | 1907-1908. | 1908-1909. | 1909-1910. | |
| \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 1,860,278 45 | 1,089,029 53 | 1,450,974 37 | 1,136,767 48 | 1,851,029 30 | 1,041,974 39 | 1,163,385 09 | 32,087,456 23 |
| ..... | ..... | ..... | ..... | ..... | 3,200 00 | ..... | 3,200 00 |
| ..... | ..... | ..... | ..... | ..... | 67,344 00 | ..... | 67,344 00 |
| ..... | ..... | ..... | ..... | ..... | 6,880 00 | ..... | 6,880 00 |
| ..... | ..... | ..... | ..... | ..... | 112,640 00 | ..... | 112,640 00 |
| ..... | ..... | ..... | ..... | ..... | 367,249 00 | 550,551 96 | 367,249 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | 30,800 00 | 30,800 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | 303,360 00 | 303,360 00 |
| 1,860,278 45 | 1,089,029 53 | 1,450,974 37 | 1,136,767 48 | 1,851,029 30 | 1,599,287 39 | 2,048,097 05 | 34,695,866 28 |
| 186,600 00 | 186,600 00 | 186,600 00 | 186,600 00 | 186,600 00 | 186,600 00 | ..... | 3,732,000 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1,525,250 00 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1,500,000 00 |
| 2,046,878 45 | 1,275,629 53 | 1,637,574 37 | 1,323,367 48 | 2,037,629 30 | 1,785,887 39 | 2,048,097 05 | 41,450,116 28 |

3 Edward VII., Cap. 57, 4 Edward VII., Cap. 34, 6 Edward VII., Cap. 43, 6-7 Edward VII., Cap. more than \$15,000 per mile, if over that amount, a further sum of fifty per cent on so much exceeding in the whole the sum of \$6,400 per mile.

W. C. LITTLE,
Accountant.

PART II

STATEMENTS

OF THE

DEPARTMENTAL SOLICITOR

FOR THE YEAR 1909-10

SHOWING

- (1) Money subsidy agreements with railway companies.
- (2) Contracts entered into during the year.
- (3) Leases of water-powers and properties granted.
- (4) Property conveyed by the Crown and lands conveyed to the Crown.
- (5) Damages released.

1 GEORGE V., A. 1911

SUBSIDY AGREEMENTS for the construction of Railways

| No. of Contract. | Date of Signature. | Railway Company. | Line of Railway or Work Subsidized. | AUTHORITY FOR EXECUTION. | |
|------------------|--------------------|--|--|--------------------------|-------------------|
| | | | | Act of Parliament. | Order in Council. |
| | 1909. | | | | 1909. |
| 17992 | Oct. 20.... | Atlantic, Quebec and Western Ry. Co. | 28 bridges on line of company's railway. | Can., 1908, c. 63. | July 29.... |
| 17631* | April 5.... | Canadian Northern Quebec Ry. Co. | From or from near Garneau Jct. to Quebec, with branch lines towards Quebec bridge. | Can., 1908, c. 63. | Feb. 1.... |
| 17792 | June 28.... | " " | From Hawkesbury to Ottawa, 60 miles. | Can., 1908, c. 63. | March 9.... |
| 17802† | July 7.... | Cape Breton Ry. Co., Ltd. | From Point Hawkesbury or Point Tupper on Strait of Canso to St. Peters. | Can., 1908, c. 63. | May 15.... |
| 17831 | July 22.... | Matane and Gaspé Ry. Co. | From point at or near Ste. Flavie on I.C. Ry. to Matane in lieu of subsidy granted by c. 43 of 1906. | Can., 1908, c. 63. | April 16.... |
| | | | | | 1908. |
| 18053‡ | Nov. 23.... | The Manitoulin and North Shore Ry. Co. | (a) From a point on the said line of railway, between Little Current and Sudbury westerly towards the Algoma Central and Hudson Bay Railway, 100 miles; (b) from Little Current crossing C.P.R. at or near Stanley and thence to Sudbury, 64 miles. (c) from point near Sudbury, northerly 30 miles in lieu of the subsidies granted by Cap. 43 of 1906, S. 1, item 1, not exceeding in all 194 miles. | Can., 1908, c. 63. | Nov. 21.... |
| | | | | | 1909. |
| 18069 | Dec. 7.... | Quebec Central Ry.Co. | From St. George to or towards St. Justine. | Can., 1908, c. 63. | July 29.... |
| 18082 | Dec. 14.... | Tobique & Campbellton Ry. Co. | From point on Canadian Pacific Railway at or near Plaster Rock, to Riley Brook. | Can., 1908, c. 63. | Nov. 1.... |
| | 1910. | | | | |
| 18114 | Jan. 10.... | Quebec and Lake St. John Ry. Co. | From end of 35th mile of La Tuque branch on St. Maurice river, to La Tuque Falls. | Can., 1908, c. 63. | Dec. 9.... |

*Assigned to Canadian Northern Ontario Railway Company by Assignment No. 17931, dated Aug. 30, 1909.
†Cancels and supersedes No. 13948 of Sept. 15, 1900.
‡Cancels and supersedes No. 14690 of May 15, 1902.

SESSIONAL PAPER No. 20

entered into during the Fiscal Year ended March 31, 1910.

| AMOUNT OF SUBSIDY. | | Number of Miles Subsidized. | Maximum Grade Feet per Mile. | Radius of Curve - ture not less than | Width of Clearing each Side. | Width of Cutting. | Embankment. | Steel Rails, lbs. per lineal yard. | Date for Completion. |
|--------------------|---------------|-----------------------------|------------------------------|---|------------------------------|-------------------|-------------|------------------------------------|----------------------|
| Per Mile. | Not exceeding | | | | | | | | |
| \$ | \$ | | Feet. | Feet. | Feet. | Feet. | Feet. | Lbs. | |
| ..... | 250,000 | | | | | | | | Aug. 1, 1912 |
| 3,200 | 6,400 | 83 | 152.80 | 955 | 50 | 20 | 15 | 56 | July 31, 1910 |
| 3,200 | 6,400 | 60 | 26 | 955 | 50 | 20 | 15 | 56 | Aug. 1, 1910 |
| 3,200 | 6,400 | 31 | 80 | 819 | 50 | 20 | 15 | 56 | Dec. 31, 1910 |
| 3,200 | 6,400 | 38 | 42 | 955 | 50 | 20 | 15 | 56 | Aug. 1, 1912 |
| 3,200 | 6,400 | 194 | 79 | 12° | 50 | 20 | 15 | 56 | Nov. 30, 1911 |
| 3,200 | 6,400 | 30 | 63 | 955 | 50 | 20 | 15 | 56 | Dec. 1, 1910 |
| 3,200 | 6,400 | 28 | 80 | 819 or 7° | 50 | 20 | 15 | 56 | Dec. 1, 1911 |
| 3,200 | 6,400 | 5 | 152.80 | 717 | 50 | 20 | 15 | 56 | Sept. 1, 1910 |

H. F. ALWARD,
Departmental Solicitor.

1 GEORGE V., A. 1911

CONTRACTS entered into during the Fiscal Year ended March 31, 1910.

INTERCOLONIAL RAILWAY.

| No. of Contract. | Date of Signature. | Contractors. | Description. |
|------------------|--------------------|--|--|
| 1909. | | | |
| 17625 | April 1.. | New Brunswick Wire Fence Company, Ltd. | Erection of fencing on line of Intercolonial Railway. |
| 17632 | " 16.. | Wm. Hood & Sons..... | Repairs to railway between Indiantown and Blackville |
| 17653 | " 23.. | Rhodes, Curry & Company, Ltd.... | Deliver 150 box cars. |
| 17673 | " 16.. | The Vaughan Electric Company, Ltd. | Install fire alarm box, &c., for yard station grain elevators and sheds at St. John, N.B. |
| 17689 | May 4.. | Farquhar Brothers..... | Electric wiring of passenger station, &c., at Maccan, N.S. |
| 17690 | " 4.. | Babcock & Wilcox, Ltd..... | Complete installation of present 500 h.p. and install additional Babcock boiler of 500 h.p., &c. |
| 17693 | " 4.. | New Brunswick Telephone Company | Replacing of telephone instruments in the several stations and offices of the Intercolonial Railway in the towns and cities along company's long line system in New Brunswick. |
| 17694 | " 5.. | Rhodes, Curry and Company, Ltd.. | Deliver 2,500 33-inch car wheels, 5-in. core. |
| 17704 | " 12.. | Canada Foundry Company, Ltd. ... | Supply, &c., 15-inch lap-welded steam heater for the boilers in power house at Moncton, N.B. |
| 17705 | " 10.. | Canada Iron and Foundry Company, Ltd. | Deliver 1,500 33-inch car wheels, 4½-inch core. |
| 17707 | " 12.. | Emil A. Wallberg..... | Supply, &c., fan system of heating for machine shop, erecting shop, &c., at Rivière du Loup, Que. |
| 17709 | " 12.. | W. I. Snook & Company..... | Electric wiring of round house, &c., at Newcastle, N.B. |
| 17710 | " 25.. | Jno. L. Richardson & Company,.... | Deliver 1,000 33-inch car wheels, 5-inch core. |
| 17738 | June 3.. | A. A. Portugais..... | Install hot water heating plant at Amqui, Que. |
| 17786 | " 11.. | A. Charles Thompson..... | Install plumbing and heating system in Iona station, N.S. |
| 17787 | " 21.. | Wm. Gallas (The Shade Electric Co.) | Electric wiring of new train service building at Chaudière Junction, Que. |
| 17790 | " 24.. | Crossen Car Mfg. Co. of Cobourg.... | Deliver three (3) baggage cars. |
| 17791 | " 26.. | Wm. A. and John M. Skidd..... | Install ten 16 c.p. incandescent lamps at new freight shed at Bathurst, N.B. |
| 17823 | July 23.. | F. A. Ronan & Company.. | Erect fencing on Intercolonial Railway in district No. 10, Dartmouth to Windsor. |
| 17827 | " 22.. | Montreal Steel Works, Ltd. | Install mechanical interlocking switch and signal plant with electric lock on machine at Buctouche Junction, on line of Intercolonial Railway. |
| 17869 | Aug. 7.. | George H. Evans..... | Supply, &c., one 10-ton, 3 motor electric travelling crane in Intercolonial Railway shops at Rivière du Loup, Que. |
| 17874 | " 10.. | W. C. Wetmore & Company.... | Install hot water heating apparatus in station building at Maccan, N.S. |
| 17917 | Sept. 1.. | Hiram G. V. Farrar..... | Electric wiring freight shed at Campbellton, N.B. |
| 17918 | Aug. 4.. | Chappell Bros. & Co., Ltd..... | Addition to freight shed at Merigomish, N.S. |
| 17919 | " 1.. | Goulette & Laviolette..... | Construct and erect freight shed at Loggieville, N.B. |
| 17920 | " 1.. | S. E. Bowser & Company, Ltd.... | Supply and install necessary equipment in Intercolonial Railway oil houses at Kempt Road yards, Halifax, N.S. |
| 17921 | " 1.. | Fred Forrester.... | Erect, &c., combined baggage, coal and oil building at Hampton, N.B. |
| 17922 | " 1.. | Florian Dumont.... | Erect, &c., combined baggage, coal and oil building at Montmagny, Que. |
| 17923 | " 1.. | T. A. Barnhill & Company.... | Erect rest house at Point Tupper. |
| 17924 | " 1.. | C. E. Fish..... | Extension to water system at Harcourt, N.S. |
| 17925 | " 1.. | Frank W. Wilson... | Extension of water system at Sussex, N.B. |
| 17945 | " 22.. | Preston Car & Coach Co., Ltd.... | Deliver one (1) baggage car. |
| 17955 | " 25.. | H. J. McManus..... | Extension to water works at St. Charles Junction and Little Metis, Que. |
| 17956 | " 18.. | Cloutier & Gaudreau..... | Erect combined station, &c., at Carmel, Que. |
| 17963 | Oct. 1.. | Zenon Ouellet..... | Erect addition to existing freight shed and baggage room at St. Pascal, Que. |
| 17965 | " 5.. | Zenon Ouellet..... | Construct combined station and dwelling, combined freight and baggage building and a combined coal oil and privy building at Daveluyville, Que. |
| 17986 | " 11.. | Chappel Bros. & Co., Ltd. | Erect addition to freight shed on wharf at North Sydney, C.B. |
| 17999 | " 28.. | Frank W. Wilson.... | Erect 50,000 gallon water tanks at Windsor Junction, N.S., Rogersville and Beaver Brook, N.B., and Cedar Hall, Que. |
| 18009 | " 29.. | Oxford Foundry & Machine Co. ... | Addition to freight office and installation of hot water heating in freight shed at New Glasgow. |

SESSIONAL PAPER No. 20

CONTRACTS entered into during the Fiscal Year ended March 31, 1910—*Continued.*

INTERCOLONIAL RAILWAY.

| No. of Contract. | Date of Signature. | Contractors. | Description. |
|------------------|--------------------|--|---|
| 1909. | | | |
| 18025 | Nov. 8.. | H. Boulay et Cie..... | Erect freight shed, &c., at Lac au Saumon, Que. |
| 18026 | " 2.. | Dumont & McLean..... | Construct addition of six (6) stalls to brick engine house at Rivière du Loup, Que. |
| 18033 | " 8.. | Corporation of the Town of Stellarton. | Supply water. |
| 18041 | " 17.. | Provincial Steel Company..... | For the rerolling of used rails weighing 110 lbs. per yard His Majesty furnishing the used rails. |
| 18042 | Nov. 17.. | H. Boulay & Cie..... | Erect and complete extension to existing freight shed at St. Alexis, Que. |
| 18052 | " 20.. | A. E. Hamilton..... | Erect car repair shop at St. John, N.B. |
| 18070 | Dec. 7.. | Rhodes, Curry & Company, Ltd.... | Delivery of 5,500, 33 in. car wheels. |
| 18071 | " 11.. | Wm. Watson..... | Install toilet accommodation and plumbing in station at Dorchester, N.B. |
| 18085 | " 14.. | Rhodes, Curry & Co | Deliver six (6) 80,000 lbs. box-baggage cars. |
| 18104 | " 27.. | H. G. Hagen..... | Construct and complete 6 in. terra cotta drain for station building at Dorchester, N.B. |
| 1910. | | | |
| 18112 | Jan. 7.. | Canadian Locomotive Company, Limited. | 10 simple consolidation locomotives. |
| 18119 | " 10.. | Henry Swim..... | Erect, &c., combined station and dwelling at Cross Creek station, county of Northumberland, N.B. |
| 18183 | " 29.. | Allis-Chalmers Bullock, Ltd..... | Supply and install electric power plant in Tower house at Rivière du Loup, Que. |
| 18210 | Feb. 15.. | Lachance & Fils..... | Addition to freight shed and enlarging of office at Rivière du Loup, Que. |
| 18211 | " 15.. | Montreal Locomotive Works, Limited. | Deliver one (1) 'Pacific Type' passenger locomotive. |
| 18239 | Oct. 8.. | Great Northwestern Telegraph Company. | For repeating of messages at Quebec. |
| 18240 | March 7.. | Laura M. McManus..... | Extension of water service pipe line and construction of dam at Cedar Hall, Que. |
| 18250 | " 15.. | Renous Bridge Lumber Company, Limited. | Erect combined passenger station and freight room at Renous, N.B. |
| 18253 | " 15.. | Louis E. Couture..... | Construction of siding at Lévis, Que. |
| 18254 | " 19.. | Laura M. McManus..... | Erect fencing from Campbellton, &c. |
| 18271 | Feb. 7.. | City of Halifax..... | Supply water at Richmond street station, Deep Water Terminus and Willow Park yards, all in Halifax. |

PRINCE EDWARD ISLAND RAILWAY.

| | | | |
|--------|-----------|-----------------------------------|--|
| 1909. | | | |
| 17624 | April 1.. | John M. Clark..... | Erect extension to railway wharf at Souris. |
| 1908. | | | |
| 17675* | Aug. 15.. | E. A. Wallberg..... | Erection of power house and a chimney at Charlottetown, P.E.I. |
| 1909. | | | |
| 17826 | July 23.. | Thomas Campbell..... | Erect extension to railway wharf at Charlottetown, P.E.I. |
| 17832 | " 26.. | J. M. Clark..... | Erect freight shed on wharf at Charlottetown, P.E.I. |
| 17926 | Sept. 1.. | Whitehead Bros..... | Construct branch line of railway from Harmony station to Elmira. |
| 17944 | " 18.. | D. R. Morrison & P. G. Clark..... | Construct 20-stall brick engine house, turntable foundation, &c., at Charlottetown, P.E.I. |
| 18043 | Nov. 17.. | Canada Foundry Co., Ltd..... | Deliver one (1) 55-foot steel through turntable at Charlottetown, P.E.I. |

QUEBEC BRIDGE.

| | | | |
|-------|-----------|----------------------------|--------------------------------|
| 1910. | | | |
| 18113 | Jan. 10.. | M. P. and J. T. Davis..... | Substructure of Quebec bridge. |

* Too late for last year's report.

1 GEORGE V., A. 1911

CONTRACTS entered into during the Fiscal Year ended March 31, 1910—*Continued.*

BEAUHARNOIS CANAL.

| No. of Contract. | Date of Signature. | Contractors. | Description. |
|------------------|--------------------|----------------------|---|
| 17981 | 1909. Oct. 5.. | Alfred Cossette..... | Crushed stone for macadamizing portion of public road on Hungry Bay Dyke, county of Beauharnois, Que. |

CHAMBLY CANAL.

| | | | |
|-------|--------------------|---|---|
| 18101 | 1909. Dec. 27.. | Phoenix Bridge and Iron Works, Limited. | Structural steel work for new power house at Chambly Canton, Que. |
|-------|--------------------|---|---|

CORNWALL CANAL.

| | | | |
|-------|---------------------|---------------------------------|---|
| 18038 | 1909. Nov. 10.. | Gordon R. Phillips..... | Extension of concrete wall across wash-out in south bank of canal at lock No. 18. |
| 18242 | 1910. March 15.. | Canada Cement Company, Limited. | Deliver 1,000 barrels of cement. |

FARRAN'S POINT.

| | | | |
|-------|---------------------|---------------------------------|--|
| 18248 | 1910. March 15.. | Canada Cement Company, Limited. | Deliver 3,350 barrels of cement for Ontario St. Lawrence Canals. |
|-------|---------------------|---------------------------------|--|

GALOPS CANAL.

| | | | |
|-------|-------------------|------------------------|---|
| 17868 | 1909. Aug. 6.. | McCoy and Wilford..... | Removal of old wooden piers and bridges above and below lock 27 of canal, and rebuild same with concrete and steel. |
|-------|-------------------|------------------------|---|

LACHINE CANAL.

| | | | |
|-------|--------------------|----------------------------------|--|
| 17766 | 1909. June 1.. | S. Paul..... | Furnish tug for towing of vessels through lock No. 2. |
| 17825 | July 15.. | Canada Foundry Company, Limited. | Supply and erect roller lift bridge over canal. |
| 18247 | 1910. Mar. 15.. | Canada Cement Company, Limited. | Deliver 34,750 barrels of cement. |
| 18280 | " 23.. | M. Connolly..... | Construct concrete walls to improve the approach to the St. Gabriel locks. |

RIDEAU CANAL.

| | | | |
|-------|--------------------|---|--|
| 17706 | 1909. May 12.. | Hurdman Lumber Company..... | Supply timber for 1909 and 1910. |
| 17822 | July 20.. | Fallon Brothers..... | Construct abutments and approaches of highway bridge at Kingston Mills, Ont. |
| 17824 | " 22.. | Hamilton Bridge Works Company, Limited. | Erect highway bridge at Kingston Mills lock station. |
| 18023 | Nov. 4.. | International Marine Signal Company, Limited. | To lay rectangular steel plate covering required on timber retaining dam at Black Rapids lock station. |
| 18244 | 1910. Mar. 15.. | Canada Cement Company, Limited. | Deliver 1,500 barrels of cement. |

SESSIONAL PAPER No. 20

CONTRACTS entered into during the Fiscal Year ended March 31, 1910—*Continued.*

SAULT STE. MARIE CANAL.

| No. of Contract. | Date of Signature. | Contractors. | Description. |
|------------------|--------------------|---------------------------------|--|
| 1909. | | | |
| 17957 | Sept. 18.. | J. J. Collins..... | Rebuild north pier of upper entrance to canal. |
| 17992 | Oct. 16.. | Roger Miller & Sons..... | Construct 7 pairs of gates for lift lock of canal. |
| 17998 | " 23.. | J. J. Collins..... | Deepen and widen channel way of upper entrance of canal. |
| 1910. | | | |
| 18249 | Mar. 15.. | Canada Cement Company, Limited. | Deliver 250 barrels of cement. |

SOULANGES CANAL.

| | | | |
|-------|----------|---------------------------------|---|
| 1909. | | | |
| 17736 | June 3.. | The Hall Engineering Works..... | Construct, &c., 2 winches on deck of gate lifter. |

TRENT CANAL.

| | | | |
|-------|------------|------------------------------------|--|
| 1909. | | | |
| 17703 | May 7.. | Herbert B. Collier..... | Deliver 96 operating machines, 96 sets of anchorage fittings and 96 pivots for lock gates. |
| 17938 | Sept. 10.. | William Hamilton, Company Limited. | Deliver metal-works for lock gates of Rosedale and Lindsay locks. |
| 18086 | Dec. 14.. | Bishop & Buchanan..... | Concrete metal-works for lock gates of Rosedale and Lindsay locks. |
| 1910. | | | |
| 18245 | Mar. 15.. | Canada Cement Company, Limited. | Deliver 102,000 barrels of cement. |

WELLAND CANAL.

| | | | |
|-------|------------|---|--|
| 1909. | | | |
| 17616 | April 1.. | David Walker and Wm. Walker.... | Repair foundation at lock No. 2. |
| 17746 | June 9.. | David Walker..... | Placing of stone protection along certain portions of summit level of canal, between Thorold and Port Colborne, Ont. |
| 17959 | Sept. 23.. | Hamilton Bridge Works Company, Limited. | Erection of steel highway bridge over raceway near old lock No. 2 of Old Welland canal, St. Catharines, Ont. |
| 1910. | | | |
| 18118 | Jan. 10.. | M. Beatty & Sons, Limited..... | Construct steel pontoon gate lifter. |
| 18246 | Mar. 15.. | Canada Cement Company, Limited. | Deliver 800 barrels of cement. |

H. F. ALWARD,
Departmental Solicitor.

1 GEORGE V., A. 1911

WATER POWER and other Public Property leased by the Department of
INTERCOLONIAL

| No. of Lease. | Date of Signature. | Lessee. | Lands or Rights demised. |
|---------------------|--------------------------|---|--|
| 1909. | | | |
| 17672 | April 26.. | Transcontinental Railway Com- missioners. | Re granting permission to cross Intercolonial Railway by Transcontinental Railway at mileage 4.65, county of Lévis, Que..... |
| 17754 | June 9.. | Emile Paturel..... | Land at Point du Chene, N.B..... |
| 17801 | " 30.. | James H. Adams..... | Land at Glen Emma, Bonaventure county, Que..... |
| 17838 | July 23.. | Albert Cowperthwaite... | Privilege to lay, &c., 1 inch iron pipe across lands and under tracks of railway about 2 miles north of Dur- ham station..... |
| 17870 | Aug. 7 | Robert Finley..... | Land at Aulac, N.B..... |
| 17927 | Sept. 1 | Geo. Cooper and Jas. P. Cunning- ham. | Land at Shediac station, N.B..... |
| 17932 | " 10.. | Louison Lumber Co., Ltd..... | Land at Nashes Creek, Restigouche county, N.B..... |
| 17934 | " 1.. | E. A. Goodwin..... | Privilege to lay, &c., a 1½-in. gas pipe along railway lands at Moncton, N.B..... |
| 17935 | " 10.. | Angus McLellan..... | Land on Dalhousie St., Campbellton, N.B..... |
| 17946 | " 22.. | Starr Mfg. Co., Ltd..... | Privilege to lay, &c., 8-in. terra cotta sewer pipe across lands and tracks of railway at Dartmouth, N.S..... |
| 17967 | " 29.. | Ronald Chisholm..... | Land at Yankee Grant, N.B..... |
| 17988 | Oct. 9.. | Robert Crawford..... | The right, &c., to lay, &c., 6-in. terra cotta sewer pipe across Intercolonial Railway right of way at Camp- bellton, N.B..... |
| 17989 | " 11.. | S. H. Dimock | To erect, &c., telephone line over and across Intercolonial Railway right of way about 3 miles east of Camp- bellton, N.B..... |
| 18002 | " 23.. | Transcontinental Railway Com- missioners. | Right and privilege to lay 6 in. cast iron water pipe across Intercolonial Railway right of way at McGivney's Junction, N.B..... |
| 18004 | " 23.. | James Jocelyn.. | Privilege to lay and maintain 1 in. water pipe across lands and under tracks of the Intercolonial Railway at Antigonish, N.S..... |
| 18012 | " 29.. | J. E. Morissette..... | Land at Assametquaghan, Que..... |
| 18027 | Nov. 8.. | MacKay Milling Co., Ltd..... | Land at North Sydney, C.B., N.S..... |
| 18031 | " 9.. | Corporation of the Town of Fraser- ville, Que. | Land at Fraserville, Que..... |
| 18046 | " 17.. | Wilfred Irvine..... | Land at Assametquaghan, county of Bonaventure, Que.. |
| 18056 | " 23.. | British Nathaniel Tryan Under- hill. | Two parcels of railway land at Underhill, county of North- umberland, N.B.. |
| 18063 | " 26.. | Ernest Charette..... | Land at Rivière du Loup, county of Temiscouata, Que.. |
| 18073 | Dec. 1.. | Brown Machine Co., Ltd..... | Lay 6 in. water pipe at New Glasgow, N.S..... |
| 18074 | Nov. 24.. | Stephen Bros..... | Land at Windsor Junction, N.S..... |
| 18083 | Dec. 14.. | Jas. D. LeBlanc..... | Land at Moncton, N.B..... |
| 18084 | " 14.. | Arch. Fraser..... | Land at Falleigh Station, county of Colchester, N.S..... |
| 18089 | " 18.. | The MacKay Mining Co., Ltd..... | Land at Sydney, N.S..... |
| 18099 | " 9.. | Imperial Oil Co., Ltd..... | Privilege to pass and repass over strip of land on Camp- bell Road, city and county of Halifax, N.S..... |
| 18100 | Sept. 15.. | Imperial Oil Co., Ltd..... | Land and right of way over 906 square feet of land on Campbell Road, city and county of Halifax, N.S.... |
| *18102 | Dec. 27.. | Spence McLean..... | Land on west side of Stanley St., St. John, N.B.; and sale of dwelling house thereon..... |
| 1910. | | | |
| 18116 | Jan. 7.. | R. W. Scribner.... | Land at Anagance, Kings county, N.B..... |
| 18173 | " 22.. | Albert Caron..... | Land at St. Fabien, Rimouski..... |
| 18174 | " 22.. | Blaise Vaillancourt.... | Land at St. Fabien, Rimouski..... |
| 18175 | " 22.. | Alphonse Leclerc.. | Land at St. Fabien, Rimouski..... |
| 18176 | " 22.. | Thos. Belanger.... | The right, &c., to lay 1 in. galvanized iron water pipe across railway right of way, about one-half mile west of St. Simon, county of Rimouski, Que..... |
| 18177 | " 22.. | Sixte Belanger.... | Land at St. Fabien, county of Rimouski, Que..... |
| 18178 | " 22.. | Antoine Ouellet.... | Land at St. Fabien, county of Rimouski, Que..... |
| 18179 | " 22.. | Theophile Michaud.... | Land at St. Fabien, county of Rimouski, Que..... |
| 18180 | " 22.. | Joseph Michaud... | Land at St. Fabien, county of Rimouski, Que..... |
| 18184 | " 22.. | Town of Truro..... | Privilege to lay, &c., 18 in. sewer pipe under tracks of rail- way on line of Cottage St..... |

* Price of house \$450.

SESSIONAL PAPER No. 20

Railways and Canals during the Fiscal Year ended March 31, 1910.

RAILWAY.

| Area. | Amount of Water Power. | Term. | Commence- ment of Term. | TERMS OF PAYMENT. | | | | | |
|-------------------|------------------------------|--------------------|-------------------------------|-------------------|------|----------------------|---------------|-----------------------------|--|
| | | | | Annual Rental. | | Due each Year. | | First Instalment Due. | |
| | | | | \$ | cts. | | | | |
| 1,667½ sq. ft.... | | During pleasure. | April 1, 1909. | 1 00 | | April 1.. | April 1, 1909 | | |
| 547 sq. ft..... | | | May 1, 1909. | 1 00 | | May 1.. | May 1, 1909 | | |
| | | | Jan. 1, 1909. | 1 00 | | Jan. 1.. | Jan. 1, 1909 | | |
| 5,000 sq. ft.... | | " | May 1, 1909. | 1 00 | | May 1.. | May 1, 1909 | | |
| 6,824 sq. ft.... | | " | Dec. 1, 1908. | 2 00 | | Dec. 1.. | Dec. 1, 1908 | | |
| | | " | Nov. 1, 1906 | 5 00 | | Nov. 1.. | Nov. 1, 1906 | | |
| 1,210 sq. ft.... | | " | Feb. 1, 1909. | 1 00 | | Feb. 1.. | Feb. 1, 1909 | | |
| 2.07 acres..... | | " | July 1, 1909.. | 1 00 | | July 1.. | July 1, 1909 | | |
| | | " | Aug. 1, 1909. | 10 00 | | Aug. 1.. | Aug. 1, 1909 | | |
| 465 sq. ft..... | | " | July 1, 1909. | 1 00 | | July 1.. | July 1, 1909 | | |
| | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| | | " | Sept. 1, 1909. | 1 00 | | Sept. 1.. | Sept. 1, 1909 | | |
| | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| 10,000 sq. ft.... | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| 0.1891 acre.... | | " | July 1, 1909. | 1 00 | | July 1.. | July 1, 1909 | | |
| 903 sq. ft..... | | " | " 1, 1909. | 1 00 | | July 1.. | " 1, 1909 | | |
| 0.22 acre..... | | " | Sept. 1, 1909. | 1 00 | | Sept. 1.. | Sept. 1, 1909 | | |
| 7,925 sq. ft.... | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| 3,893 sq. ft.... | | " | Oct. 1, 1909. | 4 00 | | Oct. 1.. | Oct. 1, 1909 | | |
| | | " | Nov. 1, 1909. | 1 00 | | Nov. 1.. | Nov. 1, 1909 | | |
| 0.22 acre..... | | " | Oct. 1, 1909. | 1 00 | | Oct. 1.. | Oct. 1, 1909 | | |
| 120 sq. ft.... | | " | Nov. 1, 1909. | 1 00 | | Nov. 1.. | Nov. 1, 1909 | | |
| 6,409 sq. ft.... | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| 4,440 sq. ft.... | | " | " 1, 1909. | 5 00 | | " 1.. | " 1, 1909 | | |
| | | 21 yrs., renewable | Jan. 1, 1909. | 1 00 | | Jan. 1.. | Jan. 1, 1909 | | |
| 1,952 sq. ft.... | | During pleasure. | " 1, 1909. | 2 00 | | " 1.. | " 1, 1909 | | |
| 2,960 sq. ft.... | | " | Nov. 1, 1909. | 5 00 | | Nov. 1.. | Nov. 1, 1909 | | |
| 750 sq. ft.... | | " | Dec. 1, 1909. | 1 00 | | Dec. 1.. | Dec. 1, 1909 | | |
| 0.137 acre. | | " | Nov. 1, 1909. | 1 00 | | Nov. 1.. | Nov. 1, 1909 | | |
| 0.126 acre. | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| 0.085 acre. | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| 0.116 acre. | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| 0.135 acre. | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| 0.007 acre. | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| 0.054 acre. | | " | " 1, 1909. | 1 00 | | " 1.. | " 1, 1909 | | |
| | | " | July 1, 1909. | 1 00 | | July 1.. | July 1, 1909 | | |

* Cancelled.

1 GEORGE V., A. 1911

WATER POWER and other Public Property leased by the Department of

INTERCOLONIAL

| No. of Lease. | Date of Signa ture. | Lessee. | Lands or Rights demised. |
|---------------------|---------------------------|---------------------------------------|--|
| 1910. | | | |
| 18186 | Jan. 25.. | Imperial Oil Company..... | Privilege to lay, &c., 9 wrought iron pipes across railway right of way at Fairview, N.S..... |
| 18212 | Feb. 15.. | Trustees Y.M.C.A. of Campbellton. | Land at Campbellton, N.B..... |
| 18213 | " 15.. | George St. Pierre & Co..... | Land at Rivière du Loup, Temiscouata county, Que.... |
| 18214 | " 15.. | Sterling L. Stockton..... | Land at Petitcodiac, N.B..... |
| 18241 | March 7.. | The Dartmouth Ferry Commission | Privilege to lay, &c., 2-12 in. sewer pipes, at Ferry Slip Crossing, Dartmouth, N.S..... |
| 18255 | " 18.. | Corporation of the City of Sydney. | Right to lay, &c., 20 in. salt glazed vitrified clay sewage pipe over railway right of way at Sydney, C.B..... |
| 18256 | " 23.. | Emile Paturel..... | Land at Point du Chêne, Westmorland county, N.B.... |
| 18273 | " 30.. | The Swedish-Canadian Lumber Co., Ltd. | Land at Kent Junction, N.B..... |
| 18274 | " 30.. | J. H. Stewart..... | Land at Antigonish, N.S..... |

PRINCE EDWARD

| | | | |
|-------|-----------|---------------------------------|--|
| 1909. | | | |
| 17840 | July 26.. | Dept. Marine and Fisheries..... | Land in Souris, county of Kings, P.E.I..... |
| 18005 | Oct. 20.. | J. T. Arbing..... | Land in lot No. 67, Queen's county, P.E.I..... |
| 18006 | " 20.. | Benedict Richard..... | Land Lot No. 1, county of Prince, P.E.I..... |

BEAUHARNOIS

| | | | |
|-------|-----------|------------------------------------|--|
| 1909. | | | |
| 18078 | Dec. 11.. | Valleyfield Electric Co., Ltd..... | Part lot 830 on Grande Isle de Beauharnois, town Valleyfield, Que., and surplus water from River St. Lawrence at foot of St. Francis lake, &c..... |

CORNWALL

| | | | |
|-------|----------|----------------------------------|--|
| 1909. | | | |
| 17982 | Oct. 7.. | Montreal and Cornwall Nav. Co.. | Land on south side of Water street, Cornwall, Ont..... |
| 17983 | " 7.. | Richelieu and Ontario Nav. Co... | Land on south side of Water street, Cornwall, Ont..... |

GALOPS

| | | | |
|-------|-----------|--|---|
| 1909. | | | |
| 17783 | June 17.. | Customs Department..... | Certain buildings at Old Lock No. 26, Cardinal, Ont..... |
| 17785 | " 23.. | W. E. Burchill, Hugh McArthur and Jas. W. Leacy. | Two parcels of canal reserve, village of Cardinal, township of Edwardsburg, county Grenville, Ont..... |
| 17933 | Sept. 1.. | George Robinson..... | Land and land covered with water on north side of public highway on west half lot 30, concession 1, township of Matilda, county of Dundas, Ont..... |
| 17947 | " 22.. | Mahlon F. Beach..... | Privilege to erect, &c., electric transmission line at the village of Iroquois..... |

SESSIONAL PAPER No. 20

Railways and Canals during the Fiscal Year ended March 31, 1910—Continued.

RAILWAY—Concluded.

| Area. | Amount of Water Power. | Term. | Commence- ment of Term. | TERMS OF PAYMENT. | | | |
|--------------------|------------------------------|--------------------|-------------------------------|-------------------|----------------------|-----------------------------|--|
| | | | | Annual Rental. | Due each Year. | First Instalment Due. | |
| | | | | \$ | cts. | | |
| | | During pleasure.. | May 1, 1909. | 1 00 | May 1.. | May 1, 1909 | |
| 0.29 acres..... | | 21 yrs., renewable | Oct. 1, 1909. | 10 00 | Oct. 1.. | Oct. 1, 1909 | |
| 5.540 sq. ft..... | | During pleasure.. | " 1, 1909. | 5 00 | " 1.. | " 1, 1909 | |
| 1,800 sq. ft..... | | " .. | July 1, 1909. | 10 00 | July 1.. | July 1, 1909 | |
| | | " .. | Dec. 1, 1909. | 1 00 | Dec. 1.. | Dec. 1, 1909 | |
| | | " .. | " 1, 1909. | 1 00 | " 1.. | " 1, 1909 | |
| 3,197 sq. ft..... | | " .. | May 1, 1910. | 1 00 | May 1.. | May 1, 1910 | |
| 3, 015 sq. ft..... | | " .. | Jan. 1, 1910. | 5 00 | Jan. 1.. | Jan. 1, 1910 | |
| 13,100 sq. ft..... | | " .. | Oct. 1, 1910. | 2 50 | Oct. 1.. | Oct. 1, 1909 | |

ISLAND RAILWAY.

| | | | | | | | |
|-------------------|--|-------------------|----------------|------|-----------|---------------|--|
| 4,800 sq. ft.... | | During pleasure.. | Sept. 1, 1904. | 1 00 | Sept. 1.. | Sept. 1, 1904 | |
| 270 sq. ft..... | | " .. | July 1, 1909. | 1 00 | July 1.. | July 1, 1909 | |
| 1,200 sq. ft..... | | " .. | Sept. 1, 1909. | 1 00 | Sept. 1.. | Sept. 1, 1909 | |

CANAL.

| | | | | | | | |
|------------------|--------------|--------------|---------------|--------|-------------|--------------|--|
| 2,700 sq. ft.... | 135 h.p..... | 9 years..... | Jan. 1, 1910. | 250 00 | Jan. & July | Jan. 1, 1910 | |
|------------------|--------------|--------------|---------------|--------|-------------|--------------|--|

CANAL.

| | | | | | | | |
|------------------|--|---------------|---------------|-------|----------|--------------|--|
| 1,980 sq. ft.... | | 10 years..... | Aug. 1, 1909. | 15 00 | Aug. 1.. | Aug. 1, 1909 | |
| 980 sq. ft..... | | 10 years..... | " 1, 1909. | 10 00 | " 1.. | " 1, 1909 | |

CANAL.

| | | | | | | | |
|-----------------|--|--------------------|---------------|-------|----------|--------------|--|
| ..... |  | During pleasure.. | June 1, 1909. | 60 00 | June 1.. | June 1, 1909 | |
| ..... |  | " .. | " 1, 1909. | 5 00 | " 1.. | " 1, 1909 | |
| 1.43 acres..... | | " .. | July 1, 1909. | 1 00 | July 1.. | July 1, 1909 | |
| ..... |  | 13 yrs., renewable | " 1, 1909. | 1 00 | " 1.. | " 1, 1909 | |

1 GEORGE V., A. 1911

WATER POWER and other Public Property leased by the Department of

LACHINE

| No. of Lease. | Date of Signature. | Lessee. | Lands on Rights demised. |
|---------------------|--------------------------|--|---|
| | 1909. | | |
| 17634 | April 13.. | Ottawa Forwarding Co., Ltd..... | Space in flour shed No. 1 between flour basins Nos. 3 and 4..... |
| 17654 | " 14.. | Montreal Water and Power Co... | Privilege to lay, &c., 14 in. cast iron pipe across land and under canal in St. Henri..... |
| 17696 | " 28.. | Philomene Decarie..... | Privilege to lay, &c., 1 in. water pipe from canal to lot 1011, Lachine, and draw water..... |
| 17697 | May 3.. | The Davies, Limited..... | Privilege to lay, &c., 8 in. iron water pipe from canal at Wellington basin, St. Ann's ward, Montreal..... |
| 17698 | April 28.. | Canada Car Co., Ltd..... | Land on north side of canal..... |
| 17699 | May 5.. | Messrs. Latour & Dupuis..... | Canal reserve on south side of canal, above Côte St. Paul bridge, Montreal, P.Q..... |
| 17714 | " 21.. | Dominion Guarantee Co., Ltd.... | Privilege to lay, &c., 3 in. iron conduit under canal west of Seigneurs street bridge, &c..... |
| 17755 | June 9.. | Parish Priest, parish of Holy Angels of Lachine. | Land forming south bank of old abandoned entrance to canal..... |
| 17784 | May 1.. | Canadian Pacific Railway Co.... | Land on south side of canal, town of St. Paul, parish of Montreal, Que..... |
| 17818 | July 5.. | Jno. H. Hutchison..... | Privilege to erect, &c., overhead travelling crane on canal lands in St. Henri, Montreal..... |
| 17820 | June 30.. | Pariseau Freres..... | Land between St. Gabriel basins 2 and 3, St. Ann's Ward, Montreal..... |
| 17834 | July 21.. | Farquhar Robertson..... | Part of northeast wharf, St. Gabriel basin, No. 3, St. Ann's ward, Montreal..... |
| 17835 | July 21.. | Merchants Cotton Co..... | Land on north side of canal in town of St. Henri, Montreal. |
| 17837 | July 21.. | L. Monette and H. Cardinal..... | Land on northwest side of canal in town of St. Henri, parish of Montreal, Que..... |
| 17839 | July 22.. | Capt. Zephirin Leroux..... | Land on north wharf of basin No. 2, St. Ann's ward, Montreal, and right to erect freight shed and office thereon..... |
| 17871 | Aug. 3.. | Montreal Street Ry. Co..... | Privilege to lay, &c., railway siding on north side of canal between Wellington street bridge and Seminary st.. |
| 17873 | " 3.. | Montreal Warehousing Co..... | Wharf lot on west side of Flour basin No. 4, St. Ann's ward, Montreal..... |
| 17876 | " 4.. | Grand Trunk Ry. Co. of Canada.. | Privilege to maintain, &c., railway siding on north bank of canal from main track opposite Canada Car Company's works at Montreal, west..... |
| 17878 | " 10.. | F. E. Hall & Co..... | Privilege to erect and maintain two-ton derrick on north west wall of Flour basin No. 4..... |
| 17936 | " 18.. | Montreal Rolling Mills Company. | Two parcels of land on north bank of canal in town of St. Henri, Montreal..... |
| 17958 | Sept. 10.. | Joseph Touzin..... | Wharf lot on northeast side of St. Gabriel basin No. 1, St. Ann's ward, Montreal..... |
| 17968 | " 11.. | D. G. Loomis & Sons..... | Land on south side of canal, above Côte St. Paul bridge, parish of Montreal, Que..... |
| 17987 | Oct. 1.. | Molsons Bank..... | Land on north side of canal in town of Lachine, Que.. |
| 17990 | Sept. 25.. | Inland Navigation Co., Limited.. | Land along north side of old basin No. 1..... |
| 18013 | Oct. 22.. | Canadian Lake Transportation Co. | Space in St. Gabriel shed No. 1, St. Gabriel basin No. 1.. |
| 18024 | Nov. 4.. | Canadian Pacific Ry. Co..... | Substituting for land leased to the Canadian Pacific Railway by lease dated August 15th, 1904, but required in connection with the widening of the canal at Côte St. Paul, certain other land in the vicinity; also granting permission to lessee to use bridge across entrance to basin..... |
| 18029 | " 9.. | Dominion Bridge Co., Ltd..... | Land on north side of canal, parish of Lachine, Que.... |
| 18030 | " 9.. | Adolph Goldwater..... | Land on St. Joseph street, town of Lachine, Que..... |
| 18040 | " 8.. | J. H. Redfern..... | Land on south side of canal, St. Gabriel ward, Montreal, Que..... |
| 18044 | " 10.. | The Bishop Construction Company, Ltd. | Land on north side of canal above Côte St. Paul bridge.. |
| | 1910. | | |
| 18120 | Jan. 13.. | J. T. Steel & Co..... | Land at Boulevard St. Paul, Montreal, Que..... |
| 18172 | " 14.. | R. MacFarlane & Co., Ltd..... | Part of wharf fronting on canal between St. Gabriel basins 3 and 4, St. Ann's ward, Montreal, Que.... |
| 18185 | " 29.. | Canadian Oil Company, Ltd..... | Wharf lots Nos. 1, 2 and 3, Montreal, Que..... |
| 18251 | Mar. 1.. | Montreal Stock yards Company.. | Part cadastral lot 326, St. Ann's ward, Montreal, and buildings thereon; and water power..... |
| 18289 | " 22.. | Ogdensburg Coal and Towing Company. | Land on north side of canal in town of St. Henri, Montreal, and privilege to erect coal elevator thereon. |

SESSIONAL PAPER No. 20

Railways and Canals during the Fiscal Year ended March 31, 1910—*Continued.*

CANAL.

| Area. | Amount of Water Power. | Term. | Commence- ment of Term. | TERMS OF PAYMENT. | | |
|--------------------|------------------------------|--------------------|-------------------------------|-------------------|----------------------|-----------------------------|
| | | | | Annual Rental. | Due each Year. | First Instalment Due. |
| | | | | \$ cts. | | |
| 12,355 sq. ft.... | | During pleasure.. | May 1, 1909. | 1,087 24 | May 1.. | May 1, 1909 |
| | | " .. | Mar. 18, 1908. | 5 00 | Mar. 18.. | Mar. 18, 1908 |
| | | " .. | May 1, 1909. | 10 00 | May 1.. | May 1, 1909 |
| | | " .. | " 1, 1909. | 360 00 | " 1.. | " 1, 1909 |
| 13,500 sq. ft.... | | " .. | Jan 1, 1909. | 135 00 | Jan. 1.. | Jan. 1, 1909 |
| 26,507 } sq. ft. | | " .. | May 1, 1909. | 225 00 | May 1.. | May 1, 1909 |
| 1,870 } sq. ft. | | " .. | " 1, 1909. | 10 00 | " 1.. | " 1, 1909 |
| 9,165 } sq. ft. | | " .. | " 1, 1909. | 5 00 | May 1.. | May 1, 1908 |
| 101,246 sq. ft.. | | 21 yrs. renewable. | May 1, 1908. | 140 00 | " 1.. | " 1, 1909 |
| 7,000 sq. ft.... | | During pleasure.. | " 1, 1909. | 25 00 | Mar. 18.. | Mar. 18, 1909 |
| | | " .. | Mar. 18, 1909 . | 100 00 | June 1.. | June 1, 1909 |
| 2,500 sq. ft.... | | " .. | June 1, 1909. | 292 00 | May 1.. | May 1, 1909 |
| 7,300 sq. ft.... | | " .. | May 1, 1909. | 74 90 | June 1.. | June 1, 1909 |
| 3,745 sq. ft.... | | " .. | June 1, 1909. | 104 00 | May 1.. | May 1, 1909 |
| 5,200 sq. ft.... | | " .. | May 1, 1909. | 13 00 | May 1.. | May 1, 1909 |
| 325 sq. ft..... | | " .. | May 1, 1909. | 50 00 | July 1.. | July 1, 1909 |
| | | " .. | July 1, 1909. | 291 00 | May 1.. | May 1, 1909 |
| 7,275 sq. ft.... | | " .. | May 1, 1909 | 166 00 | Jan. 1.. | Jan. 1, 1908 |
| | | 17 years..... | Jan. 1, 1908. | 10 00 | June 1.. | Jun 1, 1909 |
| { 2,100 sq. ft.. } | | During pleasure.. | June 1, 1909. | 90 00 | May 1.. | May 1, 1909 |
| { 2,400 sq. ft.. } | | " .. | May 1, 1909. | 95 00 | July 1.. | July 1, 1909 |
| 2,375 sq. ft.... | | " .. | July 1, 1909. | 90 76 | July 1.. | July 1, 1909 |
| { 2,200 sq. ft.. } | | " .. | July 1, 1909. | 12 69 | Oct. 1.. | Oct. 1, 1909 |
| { 1,750 sq. ft.. } | | 21 yrs. renewable. | Oct. 1, 1909. | 1,376 08 | July 1.. | July 1, 1908 |
| { 6,875 sq. ft.. } | | During pleasure.. | July 1, 1908. | 1,856 25 | Apl.-Oct. 1. | Oct. 1, 1909 |
| 1,269 sq. ft.... | | " .. | Oct. 1, 1909. | | | |
| 34,802 sq. ft.... | | | | | | |
| 22,000 sq. ft.... | | | | | | |
| 107,580 sq. ft.. | | During pleasure.. | April 1, 1909. | 645 54 | April 1.. | April 1, 1909 |
| 1,046 sq. ft.... | | " .. | Oct. 1, 1909. | 10 46 | Oct. 1.. | Oct. 1, 1909 |
| 18,475 sq. ft.... | | " .. | Nov. 1, 1909. | 369 50 | Nov. 1.. | Nov. 1, 1909 |
| 6,000 sq. ft.... | | " .. | Oct. 1, 1909. | 60 00 | Oct. 1.. | Oct. 1, 1909 |
| 1,935 sq. ft.... | | " .. | May 1, 1909. | 9 23 | May 1.. | May 1, 1909 |
| 2,500 sq. ft.... | | " .. | Jan. 1, 1910. | 100 00 | Jan. 1.. | Jan. 1, 1910 |
| 2.37 acres..... | | 21 years..... | May 1, 1910. | 2,300 00 | May 1.. | May 1, 1910 |
| 22,443 sq. ft.... | | " .. | Mar. 1, 1909. | 2,000 00 | Mar-Sep. 1. | Mar. 1, 1909 |
| 3,600 sq. ft.... | | " .. | Mar. 1, 1910. | 144 00 | March. 1.. | May 1, 1910 |

1 GEORGE V., A. 1911

WATER POWER and other Public Property leased by the Department of

RIDEAU

| No. of Lease. | Date of Signature. | | Lessee. | Lands or Rights demised. |
|---------------------|--------------------------|------|---|---|
| | 1909. | | | |
| 17763 | June | 11.. | Rideau Canoe Club, Limited..... | Submerged land, part of lot 'I', concession 'C,' town- ship Nepean, county of Carleton, Ont. |
| 17793 | June | 23.. | Henry K. Wampole & Co., Ltd.. | Lay and maintain water pipe in town of Perth, Ont. |
| 17819 | July | 10.. | Elgin-Chaffey's Lock Telephone Company. | Privilege to lay, &c., telephone line on canal lands at Chaffey's lock station and to place telephone in lock house of each section..... |
| 18003 | Oct. | 23.. | E. P. McGrath..... | 2.25 acres of land at Long island lock station on Nichol's island, part north half of lot No. 8, 1st concession of the township of Nepean, county of Carleton, Ont. |
| 18054 | Nov. | 23.. | Canadian Northern Ontario Rail- way Company. | Land at south end of 'deep cut,' lot 'F,' concession 'D,' township of Nepean, county of Carleton..... |

TRENT

| | | | | |
|-------|--------|------|----------------------------------|---|
| | 1909. | | | |
| 17829 | July | 8.. | Jno. G. G Kerry..... | All surplus water at Stephen's mill site, dam 1, section 5, of canal and right of way..... |
| 17872 | Aug. | 6.. | Crushed Stone, Limited..... | Parts of lots 32 and 48, concession 8, township of Eldon, county of Victoria, Ont..... |
| 18094 | Dec. | 21.. | Henry Pierce..... | Land west of Colborne street, Fenelon Falls, Ont..... |
| 18095 | Dec | 21.. | The Fenelon Falls Milling Co.... | Land west of Colborne street, Fenelon Falls, Ont..... |
| 18096 | " | 21.. | H. A. McIntosh..... | Land west of Colborne street, Fenelon Falls, Ont..... |
| 18097 | " | 21.. | L. L. Arnold..... | Land west of Colborne street, Fenelon Falls, Ont..... |
| | 1910. | | | |
| 18108 | Jan. | 3.. | Jas. Healey..... | Land in city of Peterborough..... |
| 18109 | Jan. | 3.. | Samuel Edwards.... | Lots 1 and 2, concession 12, township of Douro, county of Peterborough, Ont..... |
| | 1909.. | | | |
| 18115 | Dec. | 25.. | Town of Campbellford... | Part lot 15, concession 6, township of Seymour, county of Northumberland, Ont., surplus water at point "X X" on plan..... |
| | 1910. | | | |
| 18117 | Jan. | 11.. | William Kean.... | Part of lot No. 6, concession 11, township of Thorold, county of Ontario, Ont..... |
| 18275 | Mar. | 30.. | Edward Mayhew.... | Part of lot 49, concession 'A', township of Eldon, Vic- toria county, Ont..... |
| 18276 | Mar | 30.. | Wm. H. Gryles..... | Part of lot 49, concession 'A' townshp of Eldon, Vic- toia county, Ont..... |

WELLAND

| | | | | |
|-------|-------|------|---|---|
| | 1909. | | | |
| 17633 | April | 6.. | Reuben Hains..... | Parts lots Nos. 143 and 186, in township of Thorold, County of Welland, Ont..... |
| 17636 | " | 7.. | Bell Telephone Company..... | Privilege to lay, &c., telephone cable across canal lands and under canal between 6th and 7th concessions, township of Crowland..... |
| 17676 | " | 23.. | Niagara, St. Catharines and Tor- onto Railway Company..... | Privilege to lay, &c., railway siding on canal lands, from point near lessee's swing bridge to Welland Vale Mfg. Company's works..... |
| 17737 | June | 3.. | Samuel Lambert..... | Parts lots 25 and 26, concession 'S,' township of Crow- land, county of Welland, Ont..... |
| 17836 | " | 23.. | S. W. Dickinson..... | Land on west side of canal, between George and Haney streets, Humberstone, Ont..... |
| 17877 | Aug. | 12.. | C. T. Ware..... | Part of lot 14, township of Thorold, county of Welland, Ont..... |

SESSIONAL PAPER No. 20

Railways and Canals during the Fiscal Year ended March 31, 1910—*Continued.*

CANAL.

| Area. | Amount of Water Power. | Term. | Commence- ment of Term. | TERMS OF PAYMENT. | | |
|-------------------|------------------------|-------------------|-------------------------------|-------------------|----------------|-----------------------|
| | | | | Annual Rental. | Due each Year. | First Instalment Due. |
| | | | | \$ cts. | | |
| 21,000 sq. ft.... | | During pleasure.. | June 1, 1909. | 1 00 | June 1.. | June 1, 1909 |
| | | " .. | " 1, 1909. | 1 00 | " 1.. | " 1, 1909 |
| | | " .. | " 1, 1909. | 6 00 | " 1.. | " 1, 1909 |
| 2.25 ac..... | | " .. | Oct. 1, 1909. | 5 00 | Oct. 1.. | Oct. 1, 1909 |
| 0.573 ac..... | | 99 years..... | Oct. 1, 1909. | 50 00 | " 1.. | " 1, 1909 |

CANAL.

| | | | | | | |
|------------------|--|-------------------|---------------|---------------|----------|--------------|
| ..... |  | 21 years..... | Nov. 1, 1909. | 2 00 per h.p. | Nov. 1.. | Nov. 1, 1909 |
| ..... |  | During pleasure.. | June 1, 1909. | 10 00 | June 1.. | June 1, 1909 |
| 700 sq. ft..... | | " .. | Jan. 1, 1909. | 7 50 | Jan. 1.. | Jan. 1, 1909 |
| 0.32 ac..... | | " .. | Jan. 1, 1909. | 50 00 | Jan. 1.. | Jan. 1, 1909 |
| 0.35 ac..... | | " .. | " 1, 1909. | 10 00 | " 1.. | " 1, 1909 |
| 0.47 ac..... | | " .. | " 1, 1909. | 7 50 | " 1.. | " 1, 1909 |
| 1.11 ac..... | | " .. | Dec. 1, 1909. | 10 00 | Dec. 1.. | Dec. 1, 1909 |
| 10.64 ac..... | | " .. | Jan. 1, 1910. | 10 00 | Jan. 1.. | Jan. 1, 1910 |
| 6.5 ac..... | | 21 years..... | " 1, 1910. | 1 00 | " 1.. | " 1, 1910 |
| 5,922 sq. ft.... | | During pleasure.. | " 1, 1910. | 1 00 | " 1.. | " 1, 1910 |
| 4.91 ac..... | | " .. | Mar. 1, 1910. | 10 00 | Mar. 1.. | Mar. 1, 1910 |
| 1.65 ac..... | | " .. | " 1, 1910. | 15 00 | " 1.. | " 1, 1910 |

CANAL.

| | | | | | | |
|----------------------------|--|-------------------|----------------|-------|-----------|---------------|
| 10.25 } 5.06 } acres .. | | During pleasure.. | April 1, 1909. | 10 00 | April 1.. | April 1, 1909 |
| ..... |  | " .. | July 1, 1909. | 5 00 | July 1.. | July 1, 1909 |
| ..... |  | " .. | April 1, 1909. | 50 00 | April 1.. | April 1, 1909 |
| 1.21 ac..... | | " .. | " 1, 1909. | 60 00 | " 1.. | " 1, 1909 |
| 0.8 ac..... | | " .. | July 1, 1909. | 10 00 | July 1.. | July 1, 1909 |
| 14.06 ac..... | | " .. | June 1, 1909. | 14 00 | June 1.. | June 1, 1909 |

1 GEORGE V., A. 1911

WATER POWER and other Public Property leased by the Department of
WELLAND

| No. of Lease. | Date of Signature. | Lessee. | Lands or Rights demised. |
|---------------|--------------------|--|---|
| | 1909. | | |
| 17937 | Sept. 1.. | The Hedley Shaw Milling Company, Limited. | Land and land covered with water on Port Colborne harbour, county of Welland, Ont..... |
| 17976 | Oct. 5.. | Joseph Battle..... | Part of lot 26, concession 6, township of Crowland, county of Welland, Ont..... |
| 18010 | " 29.. | Western Co-operative Grape Shipping Co. | Part of lot 21, concession 5, township of Grantham, county of Lincoln..... |
| 18028 | Nov. 8.. | Thorold Natural Gas Co., Limited. | Right to lay, &c., 6 in. gas pipe line along Welland canal reserve land, in Dunnville, Ont..... |
| 18036 | " 12.. | Canadian Portland Cement Company, Limited. | Land on west pier at Port Colborne, Ont., and privileges. |
| 18055 | " 20.. | Robert Cooper..... | Part of lot 25, concession 5, township of Crowland, county of Welland, Ont., and water power..... |
| 18072 | Dec. 7.. | W. J. Aikins..... | Land on south side of feeder, Dunnville, Ont., and 25 h.p. surplus water..... |
| | 1909. | | |
| 18076 | Dec. 1.. | Ontario Power Co., Ltd..... | Privilege to lay, &c., cable across canal land and under canal, together with a short transmission line on canal lands near Thorold, Ont..... |
| 18077 | " 7.. | Ontario Hydro-Electric Power Commission. | Privilege to lay, &c., telephone cable across canal lands and under new and old canal at Allanburg, county of Welland, Ont..... |
| 18098 | Nov. 1.. | Provincial Natural Gas and Fuel Co, Ltd. | Privilege to lay, &c., 4 in. gas pipe across reserve land and under canal at Welland, Ont..... |
| | 1910. | | |
| 18252 | Mar. 12.. | The Rector and Church Wardens of Christ Church, village of Marshville. | Land on west side of millrace, being part of lot No. 19, concession 4, township of Wainfleet, county of Welland, Ont..... |
| 18277 | " 23.. | The Corporation of the Town of Dunnville. | The right and privilege to lay and maintain a 15 in. sewage pipe across the Welland canal feeder at Dunnville, county of Haldimand, Ont..... |

SESSIONAL PAPER No. 20

Railways and Canals during the Fiscal Year ended March 31, 1910—Continued..

CANAL—Concluded.

| Area. | Amount of Water Power. | Term. | Commence- ment of Term. | TERMS OF PAYMENT. | | |
|--------------|------------------------------|--------------------|-------------------------------|-------------------|----------------------|-----------------------------|
| | | | | Annual Rental. | Due each Year. | First Instalment Due. |
| | | | | \$ cts. | | |
| 6.43 ac..... | | 20 years..... | May 1, 1909. | 1,000 00 | May 1.. | May 1, 1909 |
| 0.12 ac..... | | During pleasure.. | Aug. 1, 1909. | 25 00 | Aug. 1.. | Aug. 1, 1909 |
| 0.15 ac..... | " | ..... | Sept. 1, 1909. | 10 00 | Sept. 1.. | Sept. 1, 1909 |
| ..... |  | " .. | Nov. 1, 1909. | 10 00 | Nov. 1.. | Nov. 1, 1909 |
| 1.15 ac..... | | 21 yrs., renewable | June 1, 1909. | 167 00 | June 1.. | June 1, 1909 |
| 0.13 ac..... | 100 cu. ft. per second. | 21 " .. | Nov. 1, 1909. | 413 00 | Nov. 1.. | Nov. 1, 1909 |
| 0.05 ac..... | 25 h.p..... | During pleasure.. | May 1, 1909. | 100 00 | May 1.. | May 1, 1909 |
| ..... |  | During pleasure.. | Nov. 1, 1909. | 10 00 | Nov. 1.. | Nov. 1, 1909 |
| ..... |  | " .. | Sept. 1, 1909. | 5 00 | Sept. 1.. | Sept. 1, 1909 |
| ..... |  | " .. | Nov. 1, 1909. | 5 00 | Nov. 1.. | Nov. 1, 1909 |
| ..... |  | " .. | Jan. 1, 1910. | 1 00 | Jan. 1.. | Jan. 1, 1910 |
| ..... |  | " .. | " 1, 1910. | 5 00 | " 1.. | " 1, 1910 |

1 GEORGE V., A. 1911

PROPERTY leased to the Department of Railways and Canals by.
INTERCOLONIAL

| No. of Lease. | Date of Signature. | Lessor. | Lands or Rights demised. |
|---------------------|--------------------------|------------------------------|--|
| | 1909. | | |
| 17715 | May 18.. | Montreal Board of Trade..... | Rooms 6, 7, 8, 9 and 10 ground floor, building (Board of Trade), Montreal, Que..... |
| 17966 | Sept. 27.. | Town of Campbellton..... | To lay, &c., 6 in. water main along Sugar Loaf street, in Campbellton, N.B..... |
| 18103 | Dec. 28.. | Town of Amherst*..... | Permission to connect sewer pipe of Intercolonial Railway with those of the town at a point at the intersection of the centre lines of Crescent avenue and Station street..... |

QUEBEC

| | | | |
|-------|---------|----------------------------|--|
| | 1909. | | |
| 17695 | May 4.. | Quebec Board of Trade..... | The east half of the first floor of the Board of Trade building, Quebec..... |

TRENT

| | | | |
|-------|-----------|--|--|
| | 1909. | | |
| 17635 | April 1.. | Jno. Collins..... | Land in village of Hastings, county of Northumberland, Ont..... |
| 18047 | Nov. 20.. | Jno. Jos. English, Ernest F. Mason and the Randolph McDonald Co., Ltd. | Certain tracks of land in village of Hastings, county of Northumberland, estimated at two or three-quarter acre, composed of park lots 2 and 3, for storage purposes <i>re</i> contract No. 17156..... |

*Consideration certain work by the Intercolonial Railway.

SESSIONAL PAPER No. 20

various parties during the Fiscal Year ended March 31, 1910.

RAILWAY.

| Area. | Term. | Commence- ment of Term. | TERMS OF PAYMENT. | | |
|-----------------|----------------------|-------------------------------|-------------------|----------------------|-----------------------------|
| | | | Annual Rental. | Due each year. | First Instalment due. |
| | | | \$ cts. | | |
| ..... | 3 years..... | May 1; 1909. | 1,896 00 | Quarterly.. | May 1, 1909 |
| 465 sq. ft..... | During pleasure..... | July 1, 1909. | 1 00 | July 1.. | July 1, 1909 |
| ..... | In perpetuity..... | Apr. 20, 1909. | ..... | ..... | ..... |

BRIDGE.

| | | | | | |
|-------|--------------|--------------|--------|---------|-------------|
| | 2 years..... | May 1, 1909. | 600 00 | May 1.. | May 1, 1909 |
|-------|--------------|--------------|--------|---------|-------------|

CANAL.

| | | | | | |
|-------|------------------------|----------------|-------|-----------|---------------|
| ..... | 3 years..... | Mar. 1, 1909. | 25 00 | Mar. 1.. | Mar. 1, 1909 |
| ..... | To March 31, 1910..... | Nov. 20, 1909. | 1 00 | Nov. 20.. | Nov. 20, 1909 |

H. F. ALWARD,
Departmental Solicitor.

PROPERTY CONVEYED to the Department of Railways and Canals and
INTERCOLONIAL

| No. of Deed. | Date of Deed. | Grantor. | Lot. |
|--------------------|----------------------------|--|---|
| 1909. | | | |
| 17896 | June 16.. | W. Clowater <i>et ux.</i> | Land at..... |
| *17897 | Mar. 30.. | M. MacDonald <i>et ux.</i> | Land at..... |
| 17915 | Aug. 20.. | Town of Drummondville..... | Public road in north ward..... |
| 17943 | June 11.. | Jno. Morris <i>et ux.</i> | Land at..... |
| 17960 | May 31.. | Henry Appleton (trustee)..... | Land on Campbell road..... |
| *17961 | Feb. 22.. | James McNeil <i>et ux.</i> | Land at..... |
| 17962 | May 17.. | Ida Woodworth..... | Land in north suburbs of..... |
| 1908. | | | |
| *17964 | April 29.. | Minnie S. King <i>et vir.</i> | Land at..... |
| 1909. | | | |
| 17969 | July 22.. | Isaac Creighton <i>et ux.</i> | Land near Campbell road..... |
| 17970 | " 3.. | Geo. H. Taylor, assignee, <i>et al.</i> | Land in north suburb of..... |
| 18051 | " 21.. | Walter Thomas..... | Land in north suburb of..... |
| 18059 | May 12.. | Ann Brown <i>et vir.</i> | Land at Africville, city of Halifax..... |
| 18060 | July 30.. | Walter U. Jones..... | Land near Campbell road, city of Halifax, N.S. |
| 18064 | " 10.. | Geo. W. Johnson <i>et ux.</i> | Land on southwest side of Gottinger St., Halifax..... |
| 1907. | | | |
| *18065 | Jan. 31.. | Jno. Greenaway..... | Land on west side of Upper Water St. |
| 1909. | | | |
| 18079 | Oct. 12.. | Alex. McKay <i>et ux.</i> | Lots 14, 21 and 23..... |
| 18080 | " 14.. | Alex. C. Hamilton <i>et ux.</i> | Land at..... |
| 18090 | May 14.. | James White <i>et ux.</i> | Land on Campbell road..... |
| 18105 | July 9.. | Hannah Spurr..... | Land at Moncton..... |
| 18106 | Aug. 16.. | Edwin E. D. Record <i>et al.</i> | Land on north side of Mountain road..... |
| 1908. | | | |
| *18111 | Mar. 26.. | Isaie Laplante..... | Part of lot 529..... |
| 1906. | | | |
| *18168 | June 30 and Oct. 1 } | Robt. A. Lowerison..... | { Of certain rights and privileges for installation of a water system at Milton Mill Brook, to supply Intercolonial Railway with water..... |
| 1908. | | | |
| *18218 | Mar. 11.. | Precille Blanchard..... | Part of cadastral lots 172 and 176..... |
| *18219 | May 6.. | Ulric Belisle..... | Parts of cadastral lot 167..... |
| *18220 | " 6.. | Samuel Langelier..... | " " 179..... |
| *18221 | " 6.. | Alfred Dufresne..... | " " 162 and 163..... |
| *18222 | " 6.. | Philias Benoit..... | " " 165..... |
| *18223 | " 6.. | Isaie Desmarais..... | " " 130..... |
| *18224 | Feb. 18.. | Edmond Simard..... | " " 163..... |
| *18225 | Mar. 11.. | Dieudonne Vertefeuille..... | " " 168..... |
| 1909. | | | |
| 18226 | July 7 .. | David Cameron <i>et ux.</i> | Land on north east side of Kempt road..... |
| 18257 | Aug. 17.. | Ed. Clayton <i>et al.</i> | Land near Campbell road..... |
| 18258 | Nov. 30.. | Jno. Fulton <i>et ux.</i> | Land at Truro..... |
| 18259 | July 31.. | Harry Lynds..... | " |
| 18260 | " 31.. | Jno. C. McDonald..... | " |
| 18261 | " 30.. | Peter McLean..... | " |
| 18263 | Nov. 23.. | Jno. W. Francis <i>et ux.</i> | Land between..... |

*Too late for last year's report.

SESSIONAL PAPER No. 20

Letters Patent granted during the Fiscal Year ended March 31, 1910.

RAILWAY.

| District | County. | Area. | Amount. | Remarks. |
|--------------------------------|-------------------------|---------------------|----------|----------|
| | | | \$ cts. | |
| Durham..... | York, N.B..... | ½ acre..... | 175 00 | |
| North Sydney..... | Cape Breton..... | 864 sq. ft..... | 342 82 | |
| Drummondville..... | Drummondville, Que..... | | 1,300 00 | |
| Mulgrave..... | Guysborough, N.S..... | 0,3061 sq. ft.... | 300 00 | |
| Halifax..... | Halifax, N.S..... | 0.027 acre.... } | 240 04 | |
| | | 0,031 acre.... } | | |
| Sydney..... | Cape Breton, N.S..... | 5,355 sq. ft..... | 900 00 | |
| Halifax..... | Halifax, N.S..... | 2,030 sq. ft... } | 367 60 | |
| | | 39,990 sq. ft... } | | |
| Lakeview..... | "..... | 0,105 acre..... | 56 50 | |
| Halifax..... | "..... | 0.022 acre..... | 93 99 | |
| "..... | "..... | 12,045 sq. ft..... | 100 00 | |
| "..... | "..... | 5,538 sq. ft..... | 125 39 | |
| "..... | "..... | 7,305 sq. ft..... | 150 00 | |
| "..... | "..... | 2,636 sq. ft..... | 394 37 | |
| "..... | "..... | 13,146 sq. ft..... | 300 00 | |
| "..... | "..... | 860 sq. ft..... | 1,100 00 | |
| North Sydney..... | Cape Breton, N.S..... | 2,484 sq. ft... } | 671 37 | |
| "..... | "..... | 2,461 sq. ft... } | | |
| "..... | "..... | 4,683 sq. ft... } | | |
| Halifax..... | Halifax, N.S..... | 42,649.2 sq. ft.... | 1,100 00 | |
| Moncton..... | Westmorland, N.B..... | 920 sq. ft..... | 82 80 | |
| "..... | "..... | 0.322 acres..... | 2,000 00 | |
| "..... | "..... | 3,795 sq. ft..... | 150 00 | |
| Mitchell..... | Nicolet, Que. | 0.3 acre | 50 00 | |
| }..... | Sackville, N.B..... | | 1,100 00 | |
| | | | 1 00 | |
| St. Rosalie..... | Bagot, Que..... | 1.93 acres..... | 1,000 00 | |
| "..... | "..... | 2.14 acres..... | 3,000 00 | |
| "..... | "..... | 0.09 acre..... | 75 00 | |
| "..... | "..... | 0.3 acre..... | 1,500 00 | |
| "..... | "..... | 1.44 acres..... | 3,500 00 | |
| "..... | "..... | 0.53 acre..... | 1,200 00 | |
| "..... | "..... | 0.184 acre..... | 250 00 | |
| "..... | "..... | 2.94 acres..... | 2,000 00 | |
| Halifax..... | Halifax, N.S..... | 4,225 sq. ft..... | 1,161 94 | |
| "..... | "..... | 780 sq. ft..... | 78 33 | |
| Truro..... | Colchester, N.S.... | 32,120 sq. ft..... | 334 49 | |
| "..... | "..... | 0.28 acre..... | 227 56 | |
| "..... | "..... | 35,000 sq. ft... } | 757 94 | |
| "..... | "..... | 25,137 sq. ft... } | | |
| "..... | "..... | 10,800 sq. ft..... | 270 54 | |
| North Sidney and Sydney Mines. | Cape Breton..... | 51,645 sq. ft..... | 750 00 | |

PROPERTY CONVEYED to the Department of Railways and Canals and
INTERCOLONIAL

| No. of Deed. | Date of Deed. | Grantor. | Lot. |
|--------------------|---------------------|--|---|
| 1908. | | | |
| *18264 | Sept. 25.. | James S. Byron <i>et al.</i> | Land at, and courses of water pipes through other lands. |
| *18265 | May 6.. | Zacharie Belisle..... | Parts cadastral lot 166..... |
| *18266 | Dec. 16.. | Irene Bilodeau <i>et al.</i> | Land in..... |
| *18267 | May 14.. | Mrs. M. Tanguay..... | Part cadastral lot 176..... |
| *18268 | " 14.. | Hector Girard..... | " " 170..... |
| *18269 | June 11.. | Henri Girard..... | " " 132..... |
| *18270 | Sept. 1.. | Government of Nova Scotia..... | Land at..... |
| 1909. | | | |
| 18272 | Nov. 10.. | Geo. Aikenhead..... | Land near Campbell road..... |
| 18300 | Aug. 26.. | Clarence Hay <i>et ux.</i> | Land in parish of Harcourt..... |
| 1906. | | | |
| *18301 | Sept. 25.. | Eunice Smith <i>et al.</i> | Land on west side of Upper Water St..... |
| 1909. | | | |
| 18302 | Dec. 30.. | Onésime Poulin..... | Of privilege to take water for railway purposes from Lake Beaumont, situated between parishes of St. Charles and de Beaumont..... |
| 18417 | Nov. 13.. | Alphonse Lauzier.... | Part of lot 279, and privilege to lay water pipe..... |
| 18418 | " 13.. | Etienne Couture..... | Right of entry in and upon lands and privilege to lay, &c., water pipe..... |
| 1905. | | | |
| *18436 | Mar. 11 | Mrs. J. F. Rioux..... | Part of lot 613..... |
| 1910. | | | |
| 18437 | Jan. 13.. | Stafford Loggie <i>et al.</i> ... | Land at..... |
| 18438 | " 29.. | James Adams <i>et ux.</i> | Land on Kempt Road..... |
| 18439 | " 15.. | Susan A. Veith <i>et al.</i> (Estate Geo. A. Veith). | Land in north suburbs..... |
| 1909. | | | |
| 18440 | Oct. 30.. | Nellie A. Archibald..... | Land at..... |
| 18441 | Nov. 6.. | Frank Stanfield <i>et ux.</i> | "..... |
| 18442 | Oct. 13.. | Henry A. McKenzie..... | "..... |
| 18443 | Dec. 24.. | Robt. Millar..... | Land in ward 6..... |
| 1910. | | | |
| 18444 | Feb. 17.. | Donald McDougal <i>et ux.</i> | Land at Loggieville..... |
| 1909. | | | |
| 18445 | Dec. 22.. | Alex. T. McCrae..... | Land at..... |

SOULANGES

| | | | |
|-------|----------|-------------------|-----------------------------|
| 1909. | | | |
| 17899 | May 25.. | Neree Moreau..... | Parts lots 423 and 425..... |

*Too late for last year's report.

SESSIONAL PAPER No. 20

Letters Patent granted during the Fiscal Year ended March 31, 1910—*Continued.*RAILWAY—*Continued.*

| District. | County. | Area. | Amount. | Remarks. |
|---------------------------------|--------------------------|--------------------|----------|----------|
| | | | \$ cts. | |
| Morton..... | Kings, N.S..... | 5·000 sq ft..... | 350 00 | |
| St. Rosalie..... | Bagot, Que..... | 1·91 acres..... | 3,000 00 | |
| "..... | "..... | 5·83 arpent..... | 1,800 00 | |
| "..... | "..... | 0·28 acre..... | 150 00 | |
| "..... | "..... | 0·766 acres..... | 182 00 | |
| "..... | "..... | 1·3 acre..... | 300 00 | |
| Truro..... | Colchester, N.S..... | 4·1 acres..... | 927 50 | |
| Halifax..... | Halifax, N.S..... | 1,607 sq ft... | 151 05 | |
| Harcourt..... | Kent, N.B..... | 0·1762 acre..... | 400 00 | |
| Halifax, N.S..... | Halifax, N.S..... | 2,553 sq. ft..... | 3,896 96 | |
| St. Pierre du Lac (Cedar Hall). | Bellechasse..... | | 4,000 00 | |
| | Rimouski..... | ½ acre..... | 200 00 | |
| " " | "..... | 10,000 sq. ft..... | 50 00 | |
| Fraserville, Que..... | | | 800 00 | |
| Loggieville..... | Northumberland, N.B..... | 0·29 acres..... | 294 43 | |
| Halifax..... | Halifax, N.S..... | 9,870 sq. ft..... | 1,950 65 | |
| "..... | "..... | 39,726 sq. ft..... | 258 08 | |
| Truro..... | Colchester, N.S..... | 2·3 acre..... | 2,012 82 | |
| "..... | "..... | 1·05 acre..... | 2,173 56 | |
| Springhill Jct..... | Cumberland, N.S..... | 7·10 acre..... | 532 50 | |
| Halifax..... | Halifax, N.S..... | 1·15 acre..... | 402 50 | |
| Loggieville..... | Northumberland, N.B..... | 0·37 } acre..... | 276 28 | |
| | | 0·28 } | | |
| Glengarry..... | Pictou, N.S..... | 9,830 sq. ft..... | 10 00 | |

CANAL.

| | | | | |
|------------------------------|----------------|-------------------|----------|--|
| Parish of St. Joseph de Sou- | | 0·65 | | |
| langes. | Soulanges..... | 3·02 } acres..... | 2,424 79 | |
| | | 1·18 } | | |

1 GEORGE V., A. 1911

PROPERTY CONVEYED by the Department of Railways and Canals by
TRENT

| No. of Deed. | Date of Deed. | Grantor. | Lot. |
|--------------|---------------|---|---|
| 1909. | | | |
| 17778 | May 3.. | Corporation of the township of Seymour. | Part allowance for road between lots 5 and 6, concession 14, township of Seymour, county of Northumberland, Ont..... |
| 17828 | " 22.. | John G. G. Kerry <i>et ux</i> | Parts of lot 13, concession 7..... |
| 17898 | June 28.. | Charles Armstrong <i>et ux</i> | 0.15 acre, part lot No. 5, in 14th concession, township of Seymour, county of Northumberland..... |
| 17942 | Aug. 11.. | Northumberland-Durham Power Co. | Parts 15 and 16, concession 11, and part 15, concession 12..... |
| 17972 | June 14.. | B. W. Powers and J. S. Dench <i>et al</i> . | Island in River Trent, opposite shore, between Radeski and Wall streets..... |
| 17971 | " 24.. | B. W. Powers and R. Powers <i>et al</i> . | South part of Lecauss island, town of..... |
| *18016 | Feb. 17.. | George Victor Bamber <i>et ux</i> | Nos. 7 and 8, north side of Bridge street, village of Frankford..... |
| *18017 | Mar. 26.. | Murrey Sine <i>et ux</i> | No. 7, south side of Bridge street, village of Frankford.. |
| 18018 | May 13.. | Charles Gallagher <i>et ux</i> | No. 8, south side of Bridge street, village of Frankford.. |
| 18019 | June 22.. | William M. Moynes <i>et ux</i> | No. 9, south side of Bridge street, village of Frankford.. |
| 18020 | Aug. 12.. | Elizabeth Lozo <i>et al</i> | Parcels Nos. 3 and 4, Lecauss island..... |
| *18049 | Mar. 26.. | Ed. Francis Turley <i>et al</i> | Parts of No. 4, &c., concession 5..... |
| 18061 | June 29.. | Thos. Parish <i>et al</i> | Part of lot 1, concession 2..... |
| 18171 | Oct. 16.. | Ann Jane Sweetman <i>et al</i> | Lot No. 6, south side of Bridge street, Frankford..... |
| 18227 | Dec. 20.. | Wm. Foster <i>et ux</i> | Part of lot 4, concession 5..... |
| 18228 | Sept. 30.. | Eleanor Jane Forsyth..... | Part lots 1 and 2, concession 4..... |
| 18231 | Dec. 20.. | Tina Smith <i>et al</i> | Part lot No. 2, concession 3..... |
| 18232 | Aug. 12.. | Jas. T. Howard <i>et ux</i> | Part lot No. 5, concession 6..... |
| 18262 | " 16.. | Wm. J. Lyons <i>et ux</i> | Lots 4, 5 and 6, north side of Bridge street, Frankford.. |
| 1908. | | | |
| *18299 | May 24.. | Corporation of town of Seymour. | Parts of lots 12, 13 and 14, concession 7, and of lot 14, concessions 8 and 9, township of Seymour, county of Northumberland, Ont..... |
| 1909. | | | |
| 18434 | July 5.. | Town of Campbellford..... | Parcels Nos. 1, 6, 7, 8, 9, 10, 11, 12 and 13, parts lot 14, concession 9, lots 14 and 15, concession 8, and six islands in Trent river, township of Seymour, county of Northumberland..... |
| 18435 | Nov. 9.. | Robt. Eli. Westcott..... | Part lot 10, township of Thorah, county of Victoria, Ont. |

WELLAND

| | | | |
|-------|-----------|--|--|
| 1909. | | | |
| 17779 | June 12.. | Aaron Vandevere <i>et ux</i> | Lot 18, south side of Clarence street.... |
| 17842 | May 1.. | Daniel Philip Perlet <i>et ux</i> | Part of lot 28, concession 2, township of |
| 17843 | " 21.. | Emma Margaret Perlet..... | " " " "..... |
| 17844 | " 21.. | Abram Frederick Perlet <i>et ux</i> | " " " "..... |
| 17845 | " 21.. | Sarah Josephine Schlehr <i>et mar</i> .. | " " " "..... |
| 17846 | " 21.. | Catharine Jones..... | " " " "..... |
| 17847 | " 21.. | Theodosia Suess <i>et mar</i> | " " " "..... |
| 17848 | " 21.. | Mary Williard <i>et mar</i> | " " " "..... |
| 17849 | " 21.. | Otto Louis Perlet <i>et ux</i> | " " " "..... |
| 17850 | July 12.. | Duncan Armstrong <i>et ux</i> | Lot No. 1, north side of Ash street, village of Port Colborne..... |
| 17900 | July 29.. | Jane Peterson..... | Lot No. 1, south side of Ash street, village of Port Colborne..... |
| 1910. | | | |
| 18187 | Jan. 8.. | Mary A. Pringle..... | Part of lot No. 1, north side of Sugar Loaf street..... |

* Too late for last year's report.

SESSIONAL PAPER No. 20

Letters Patent during the Fiscal Year ended March 31, 1910—*Continued.*

CANAL.

| District. | County. | Area. | Amount. | Remarks. |
|--------------|---------------------|------------------|----------|--|
| | | | \$ cts. | |
| Seymour..... | Northumberland..... | 0.06 acre..... | 1 00 | |
| "..... | "..... | 14.83 acres..... | 1 00 | |
| "..... | "..... | 0.15 acre..... | 100 00 | |
| "..... | "..... | 19.37 acres..... | 1 00 | And lease of surplus water. |
| Trenton..... | Hastings..... | ..... | 700 00 | |
| "..... | "..... | 4 acres..... | 600 00 | |
| Sydney..... | "..... | ..... | 2,350 00 | |
| "..... | "..... | ..... | 1,075 00 | |
| "..... | "..... | ..... | 1,500 00 | |
| "..... | "..... | ..... | 800 00 | |
| Trenton..... | "..... | ..... | 250 00 | |
| Sydney..... | "..... | ..... | 6,252 50 | |
| Murray..... | "..... | 0.6 acre..... | 50 00 | |
| Sydney..... | "..... | 0.16 acre..... | 225 00 | |
| "..... | "..... | 6.8 acres..... | 1,700 00 | |
| "..... | "..... | 6.10 acres..... | 444 00 | |
| "..... | "..... | 13.89 acres..... | 555 60 | |
| "..... | "..... | 7.6 acres..... | 900 00 | |
| Sydney..... | Hastings..... | 0.48 acre..... | 2,500 00 | |
| Seymour..... | Northumberland..... | 6.55 acres..... | 1 00 | Exchange, see 18182. |
| "..... | "..... | ..... | 1 00 | Lease No. 18115, dated Dec. 29, 1909, in perpetuity, of 6.5 acres of land and all surplus water at dam at Middle Falls; together with right of way for electrical transmission line. |
| Thorah..... | Victoria..... | 0.75 acre..... | 100 00 | |

CANAL.

| | | | | |
|--------------------|-------------------|-----------------|----------|--|
| Port Colborne... | Welland, Ont..... | 0.25 acres..... | 2,000 00 | |
| Humberstone..... | "..... | 0.16 acres..... | 275 00 | |
| "..... | "..... | 0.16 acres..... | 275 00 | |
| "..... | "..... | 0.16 acres..... | 275 00 | |
| "..... | "..... | 0.16 acres..... | 275 00 | |
| "..... | "..... | 0.16 acres..... | 275 00 | |
| "..... | "..... | 0.16 acres..... | 275 00 | |
| "..... | "..... | 0.16 acres..... | 275 00 | |
| Welland, Ont.... | "..... | ..... | 350 00 | |
| "..... | "..... | ..... | 1,600 00 | |
| Port Colborne..... | "..... | 0.75 acres..... | 1,800 00 | |

1 GEORGE V., A. 1911

PROPERTY CONVEYED by the Department of Railways and Canals by Letters
INTERCOLONIAL

| No. of Deed. | Date of Deed. | Grantor. | Lot. |
|--------------------|---------------------|--------------------------------|---|
| | 1909. | | |
| 18034 | Oct. 19. | The Imperial Oil Company, Ltd. | Land on south shore of Bedford river..... |

TRENT

| | | | |
|-------|----------|---|---|
| | 1910. | | |
| 18182 | Jan. 10. | The Corporation of the Town of Seymour. | Parts of lots 12, 13 and 14, concession 7, and lot 14, concession 8 and 9, township of Seymour, county of Northumberland..... |

SESSIONAL PAPER No. 20

Letters Patent during the Fiscal Year ended March 31, 1910—*Continued.*

RAILWAY.

| District. | County. | Area. | Amount. | Remarks. |
|--------------|--------------------|--------------------|---------|-----------------|
| | | | \$ cts. | |
| Halifax..... | Halifax, N.S. | 16,988 sq. ft..... | | Letters patent. |

CANAL.

| | | | | |
|----------------|------------------|-----------------|---------|--|
| } Seymour..... | Northumberland.. | 0.62 acre | } | Letters Patent Exchange. See No. 18,299. |
| | | 1.46 acres..... | | |
| | | 4.00 acres..... | | |
| | | 0.84 acre | | |
| | | 3.2 acres..... | | |

H. F. ALWARD,
Departmental Solicitor.

1 GEORGE V., A. 1911

DAMAGES released to the Department of Railways and Canals during the Fiscal Year ended March 31, 1910.

INTERCOLONIAL RAILWAY.

| No. of Re-lease. | Date of Release. | Grantor. | Description. | Amount. |
|------------------|------------------|---|--|----------|
| 1909. | | | | \$ cts. |
| 17973 | Aug. 25.. | Amelia Groslet (widow F. Savary, employee Inter-colonial Railway. | Of all claims arising out of the death of her late husband, Francois Savary. | 250 00 |
| 18035 | Oct. 25.. | A. F. Jardine..... | Injuries sustained at station of Derby Junction, N. B., whilst travelling as a passenger. | 3,000 00 |
| 18110 | Dec. 29.. | J. M. Slayter..... | For all claims for damages, &c., that may at any time arise in exercise of privileges to travelling on I. C. Ry. engines for purpose of acquiring knowledge of engine driving. | 200 00 |
| 17683 | April 6.. | George Foster..... | For damages to property consequent upon the erection of the Stanley street bridge, St. John, N.B. | 200 00 |

SOULANGES CANAL.

| | | | | |
|-------|-----------|--|--|-------|
| 1909. | | | | |
| 18067 | Oct. 20.. | Quebec Transportation and Forwarding Co., Ltd. | For damages to barge <i>Ad</i> , by striking of swing bridge against said barge. | 55 00 |

WELLAND CANAL.

| | | | | |
|-------|---------|-----------------------|---|-------|
| 1909. | | | | |
| 17702 | May 8.. | Chas. E. Stewart..... | For damages consequent upon injuries to a horse.. | 50 00 |

QUEBEC BRIDGE.

| | | | | |
|-------|-----------|-------------------------|--|---------|
| 1910. | | | | \$ cts. |
| 18242 | Mar. 12.. | Phoenix Bridge Company. | Releasing the company from all liability in connection with the collapse of the Quebec bridge. | 100.000 |

TRENT CANAL.

| | | | | |
|-------|------------|------------------------------------|---|--------|
| 1909. | | | | |
| 17649 | April 6.. | Jno. O'Keefe <i>et ux</i> | Damages by water to lot 10, concession 4, and to lot 10, concession 5, township of Otonabee, county of Peterborough, Ont. | 200 00 |
| 17670 | " 10.. | Robt. A. Robertson <i>et ux</i> .. | Damages by water to part of west half of lot 5, concession 8, township of Monaghan, county of Peterborough, Ont. | 50 00 |
| 17700 | " 21.. | Annie Davis <i>et al</i> | Damages by water to lots 1, 2 and 3, concession 18, township of Harvey, county of Peterborough, Ont. | 210 00 |
| 17701 | " 16.. | Jas. Kiley <i>et ux</i> | Damages by water to lot No. 3, block 'A' and part of lot 4, Lot 'A', Hiawatha, Indian reservation, township of Otonabee, county of Peterborough, Ont. | 135 00 |
| 17718 | May 5.. | A. W. McIntyre <i>et al</i> | Release for damages by water to lot 6, concession 9, township of Otonabee, county of Peterborough, Ont. | 460 00 |
| 17719 | April 15.. | Wm. T. Smith <i>et al</i> | Damages by water to east half of lot No. 2 and west half of lot No. 3, concession 5, township of Monaghan, county of Northumberland, Ont. | 180 00 |
| 17720 | " 15.. | Edmund C. Foley <i>et al</i> | Damages by water to east half of lots 11 and 12, concession 4, township of Otonabee, county of Peterborough, Ont. | 380 00 |
| 17722 | May 8.. | Jno. J. Lundy ... | Damages by water to lots 5 and 6, concession 11, township of Ennismore, county of Peterborough, Ont. | 50 00 |

SESSIONAL PAPER No. 20

DAMAGES released to the Department of Railways and Canals during the Fiscal Year ended March 31, 1910—*Continued.*TRENT CANAL—*Continued.*

| No. of Re- lease. | Date of Signature. | Grantor. | Description. | Amount. |
|-------------------------|--------------------------|-------------------------------------|--|----------|
| | 1909. | | | \$ cts. |
| 17725 | April 27.. | Robt. J. Adamson <i>et al.</i> | Damages by water to east half of lot 8, concession 9, township of Otonabee, county of Peterborough, Ont. | 200 00 |
| 17727 | " 9.. | Herbert A. Cairnduff, <i>et al.</i> | Damages by water to north three-quarters of lot 20, concession 16, township of Harvey, county of Peterborough, Ont. | 100 00 |
| 17728 | " 28.. | Quintin Moore <i>et ux.</i> | Damages by water to east half of lot 21, concession 17, township of Harvey, county of Peterborough, Ont. | 200 00 |
| 17729 | May 8.. | Raglan Richmond <i>et al.</i> | Damages by water to part of lot 19 and west half lot 20, concession 15, township of Harvey, county of Peterborough, Ont. | 100 00 |
| 17730 | " 13.. | Wm. P. Chase <i>et ux.</i> | Damages by water to lot 'A' in the 16th concession of the township of Harvey, county of Peterborough, Ont. | 175 00 |
| 17731 | " 1.. | Jane Coward <i>et al.</i> | Damages by water to part of lot 10, concession 11, and broken lots 7 and 8, concession 12, township of Otonabee, county of Peterborough, Ont. | 320 00 |
| 17732 | April 9.. | Francis McElroy <i>et ux.</i> | Damages by water to north half of lot No. 2. and east half of lot No. 3, in concession 5, and to lot 3, concession 6, township of Carden, county of Victoria, Ont. | 180 00 |
| 17733 | " 10.. | Selena Jane McQuade <i>et al.</i> | Damages by water to south half of lot No. 9, south-east quarter lot 8, concession 5, and to north-east quarter of lot 8 and west half of lot 9, in 4th concession of township of Emily, county of Victoria, Ont. | 400 00 |
| 17734 | " 13.. | Wm. E. Burke <i>et ux.</i> | Damages by water to lot No. 2, concession 4, township of Carden, county of Victoria, Ont. | 120 00 |
| 17753 | " 27.. | Michael F. Lynch <i>et ux.</i> | Damages by water to east half of lots Nos. 1 and 2 in the 2nd concession, and to lot No. 1 in the 3rd concession of the township of Asphodel, county of Peterborough, Ont. | 1,050 00 |
| 17760 | " 11.. | Jno. D. McGregor <i>et al.</i> | Damages by water to west half of lots 9 and 10, concession 7, township of Otonabee, county of Peterborough, Ont. | 200 00 |
| 17761 | May 20.. | Phœbe Wedlock..... | Damages by water to parts of broken lot No. 18, concession 2, township of South Monaghan, county of Northumberland, Ont. | 20 00 |
| 17762 | April 27.. | Adam A. Humphries <i>et ux.</i> | Damages by water to block 'A' in 1st concession, block 'A' and west part of lot No. 1, concession 2, township of Asphodel, county of Peterborough, Ont. | 911 00 |
| 17769 | " 30.. | James D. Byers..... | Damages to south 50 acres of No. 35 in 9th concession of Hamilton, county of Northumberland, Ont. | 180 00 |
| 17770 | " 30.. | D. Heaslip..... | Damages to north half lot No. 34, concession 9 of township of Hamilton, county of Northumberland, Ont. | 675 00 |
| 17771 | " 29.. | H. Allen..... | Damages to west half lot 3, 14th concession of Harvey, county of Peterborough. | 120 00 |
| 17774 | May 26.. | Mary Ann Scriver <i>et al.</i> | Damages to an island in the Trent River, north of lot No. 7, in the 11th concession, township of Percy, county of Northumberland, Ont. | 36 00 |
| 17775 | April 24.. | John Kerr <i>et al.</i> | Damages to lots 18 and 19, concession 3, township of South Monaghan, county of Northumberland, Ont. | 1,000 00 |
| 17776 | " 2.. | Roland M. Waddell..... | Damages to north half lot 3, and east half lot 2, concession 3½, township of South Monaghan, county of Northumberland, Ont. | 700 00 |
| 17777 | May 29.. | Robt. E. Sherwin <i>et ux.</i> | Damages to south east quarter lot 4, concession 2, township of Alnwick, county of Northumberland, Ont. | 64 00 |
| 17782 | " 31.. | Jas. & Francis McCulloch.. | Damages to parts lots 2 and 3, concession 9, township of Hamilton, county of Northumberland, Ont. | 304 00 |
| 17797 | " 8.. | Alexander Thompson <i>et al.</i> | Damages to east half lots 1 and 2 in the 15th concession of the township of Harvey, county of Peterborough, Ont. | 60 00 |
| 17798 | June 19.. | Wm. J. Laing <i>et al.</i> | Damages to east two-thirds of west half of lot 5, concession 8, township of North Monaghan, county of Peterborough, Ont. | 100 00 |
| 17799 | " 19.. | Julia A. Kent..... | Damages to lots 32 and 33, concession 9, township of Hamilton, county of Northumberland, Ont. | 240 00 |
| 17800 | " 19.. | John C. Lynch..... | Damages to west half of lot 3, concession 6, township of Asphodel, county of Peterborough, Ont. | 40 00 |

1 GEORGE V., A. 1911

DAMAGES released to the Department of Railways and Canals during the Fiscal Year ended March 31, 1910—*Continued.*TRENT CANAL—*Continued.*

| No. of Re-lease. | Date of Signature. | Grantor. | Description. | Amount. |
|------------------|--------------------|--------------------------------------|---|---------|
| | 1909. | | | \$ cts. |
| 17803 | May 19.. | Garrett Galvin <i>et ux.</i> ... | Damages by water to lot No. 1, concession 16, township of Harvey, county of Peterborough, Ont. | 400 00 |
| 17804 | June 22.. | Wm. J. Isaac <i>et ux.</i> | Damages by water to lot 1, concession 9, township of Hamilton, county of Northumberland, Ont. | 400 00 |
| 17805 | June 23.. | Alexander E. Kennedy <i>et ux.</i> | Damages by water to lot No. 23 in the 15th concession of the township of Smith, county of Peterborough, Ont. | 75 00 |
| 17806 | " 19.. | Thomas Williamson <i>et ux.</i> .. | Damages to west half of lot 11, concession 11, township of Percy, county of Northumberland, Ont. | 48 00 |
| 17807 | " 19.. | Jno. Breckenbridge <i>et ux.</i> ... | Damages to west half of lot 5, concession 3, township 1 of Asphodel, county of Peterborough, Ont. | 60 00 |
| 17808 | " 23.. | Charles Fox <i>et ux.</i> | Damages to west half of lot 6, concession 1, township of Asphodel county of Peterborough, Ont. | 360 00 |
| 17809 | " 23.. | Fowlds Co., Ltd. | Damages to portion of land lying south of Front St., east of William St. and west of New St., Hastings, county of Northumberland, Ont. | 150 00 |
| 17851 | May 8.. | William Graham <i>et al.</i> | Damages to block 'A', township of South Burleigh, county of Peterborough, Ont. | 300 00 |
| 17852 | July 17.. | Wm. J. Johnston <i>et ux.</i> | Damages to lot 1 and part of north half lot 2, concession 1, township of Alnwick, county of Northumberland, Ont. | 340 00 |
| 17853 | " 3.. | Andrew Smith..... | Damages to north half lot 7, concession 3, and to lot 8, concession 4, township of Alnwick, county of Northumberland, Ont. | 600 00 |
| 17854 | June 30.. | Peter Nicholls <i>et al.</i> | Damages to lot 27, concession 15, township of Smith, county of Peterborough, Ont. | 90 00 |
| 17855 | " 26.. | James A. Fife <i>et ux.</i> | Damages to lots 4 and 5, concession 5, township of Smith, county of Peterborough, Ont. | 50 00 |
| 17856 | " 24.. | David Armstrong <i>et ux.</i> | Damages by water to north part of lot 35, concession 9, township of Hamilton, county of Northumberland, Ont. | 400 00 |
| 17857 | July 3.. | Robert Hill <i>et al.</i> | Damages to part of lot 9, concession 9, township of Harvey, county of Peterborough, Ont. | 80 00 |
| 17858 | June 26.. | Nixon D. Timlon <i>et al.</i> | Damages to lot 8, concession 3, township of Alnwick, county of Northumberland, Ont. | 492 00 |
| 17859 | " 23.. | Albert A. Hollingshead <i>et al.</i> | Damages by water to part of lot No. 3, township of Smith, county of Peterborough, Ont. | 65 00 |
| 17860 | July 6.. | John James Howden <i>et ux.</i> | Damages to lots 11 and 12, concession 11, township of Otonabee, county of Peterborough, Ont. | 440 00 |
| 17861 | June 30.. | John Dowler <i>et al.</i> | Damages to south half lot 7, concession 3, township of Alnwick, county of Northumberland, Ont. | 216 00 |
| 17862 | May 7.. | Margaret Burrison..... | Damage to south half of lot 9, concession 3, township of Alnwick, county of Northumberland, Ont. | 400 00 |
| 17863 | June 30.. | David Conroy <i>et ux.</i> | Damages by water to north half of lot No. 10, and to west 55 acres of south half of lot No. 10, concession 16, and lot 9, concession 17, township of Harvey, county of Peterborough, Ont. | 100 00 |
| 17864 | May 29.. | Richard Corkery <i>et al.</i> | Damages to part of lot 19, concession 4 township of South Monaghan, county of Northumberland, Ont. | 150 00 |
| *17865 | Mar. 9.. | Wm. Whitfield..... | Damages to parts of lots 7 and 8, concession 9, township of North Monaghan, county of Peterborough, Ont. | 800 00 |
| 17866 | June 12.. | Louis Whitfield..... | Damages to part of lot 8, concession 8, and part of lot 10, concession 10, township of North Monaghan, county of Peterborough, Ont. | 480 00 |
| 17867 | " 19.. | Wm. McClelland <i>et al.</i> | Damages by water to part of lot 15, concession 3, township of South Monaghan, county of Northumberland, Ont. | 80 00 |
| 17879 | July 27.. | S. A. Northey <i>et al.</i> | Damages to lot 26, concession 14, township of Smith, county of Peterborough, Ont. | 60 00 |
| 17880 | May 20.. | John P. Ayotte <i>et al.</i> | Damages to lots 20 and 21, concession 12, township of Smith, county of Peterborough, Ont. | 250 00 |
| 17881 | April 17.. | J. Laura Phalen..... | Damages to lot 16 in the 8th concession of the township of Ennismore, county of Peterborough, Ont. | 30 00 |
| 17882 | June 26.. | John Weatherup <i>et al.</i> | Damages to west half of south 100 acres of lot No. 4, part of northwest half of lot 4, concession 2 of the township of Alnwick, county of Northumberland, Ont. | 120 00 |
| 17883 | July 24.. | F. B. Herald <i>et al.</i> | Damages to lot 16 in the broken lot of the township of South Monaghan, county of Northumberland, Ont. | 200 00 |

SESSIONAL PAPER No. 20

DAMAGES released to the Department of Railways and Canals during the Fiscal Year ended March 31, 1910—*Continued.*

TRENT CANAL—*Continued.*

| No. of Release. | Date of Signature. | Grantor. | Description. | Amount. |
|-----------------|--------------------|--------------------------------------|---|----------|
| | 1909. | | | \$ cts. |
| 17884 | July 24.. | Alfred E. Saunders <i>et al.</i> ... | Damages to part of lot No. 11 in the 11th concession of the township of North Monaghan, county of Peterborough, Ont. | 75 00 |
| 17885 | June 10.. | John Carleton Read <i>et al.</i> ... | Damages to lots Nos. 10 and 11 in the 12th concession of the township of Otonabee, in the county of Peterborough, Ont. | 200 00 |
| 17886 | April 17.. | John Riddell <i>et al.</i> ... | Damages to west half of lot 13 in the 4th concession of the township of South Monaghan, in the county of Northumberland, Ont. | 500 00 |
| 17887 | June 26.. | Albert T. Reid <i>et al.</i> ... | Damages to lot 3 in the 3rd concession of the township of Burleigh, in the county of Peterborough, Ont. | 120 00 |
| 17888 | July 24.. | Alex. M. Laing..... | Damages to the northeast quarter of lot No. 2 in the 8th concession of the township of North Monaghan, in the county of Peterborough, Ont. | 40 00 |
| 19889 | May 15.. | Thomas Henry Fulton <i>et ux</i> | Damages to the east half of lot No. 3, 17th concession, and to northwest part of lot No. 2 in the 16th concession of the township of Harvey, county of Peterborough, Ont. | 50 00 |
| 17890 | June 17.. | John C. Taylor <i>et al.</i> | Damages to the east half of lots 7 and 8 in the 10th concession of the township of Harvey, county of Peterborough, Ont. | 620 00 |
| 17891 | Aug. 10.. | William Lowes <i>et ux.</i> | Damages to north half of lot 17 in the 7th concession, and southeast part of lot 17 in the 8th concession of the township of Otonabee, county of Peterborough, Ont. | 230 00 |
| 17892 | June 30.. | Alexander Nicholls <i>et al.</i> ... | Damages to islands 'C,' 'D' and 'E' in Buckhorn Lake, in the township of Harvey, county of Peterborough, Ont. | 120 00 |
| 17893 | Aug. 5.. | Robert H. Johnson..... | Damages to the southwest quarter of lot No. 8 in the 5th concession, and the southeast quarter of lot No. 8, at West Pigeon River, in the township of Emily, county of Victoria, Ont. | 120 00 |
| 17894 | " 5.. | Thomas H. Fee <i>et al.</i> | Damages to the northwest quarter of lot No. 12 in the 6th concession, and northeast quarter of lot No. 12 in the 6th concession, and southeast quarter of lot No. 13 in the 7th concession of the township of Emily, county of Victoria, Ont. | 140 00 |
| 17895 | June 25.. | William O. Harvie <i>et al.</i> ... | Damages to lot No. 7 in the 4th concession, and part of lot No. 7 in the 3rd concession of the township of Alnwick, county of Northumberland, Ont. | 240 00 |
| 17901 | Aug. 7.. | Peter Brady..... | Damages to the east half of lot No. 10 in the 11th concession of the township of Percy, county of Northumberland, Ont. | 64 00 |
| 17902 | " 12.. | John J. Lamb..... | Damages to park lot No. 3, in the village of Omenee, county of Victoria, Ont. | 20 00 |
| 17903 | " 6.. | George A. Balfour. | Damages to park lot No. 2, in the village of Omenee, county of Victoria, Ont. | 20 00 |
| 17904 | May 4.. | John S. Matchett <i>et al.</i> | Damages to the east half of lot No. 7 and part of lot No. 8 in the 8th concession of the township of North Monaghan, county of Peterborough, Ont. | 2,000 00 |
| *17905 | Feb. 1.. | Thomasina F. Orde <i>et al.</i> ... | Damages to lot No. 9 in the 11th concession of the township of Otonabee, county of Peterborough, Ont. | 500 00 |
| 17906 | Aug. 5.. | Robert H. McQuade <i>et al.</i> ... | Damages to the northwest quarter of lot No. 9 in the 5th concession, and to the southeast half of lot No. 9, and northeast quarter of lot No. 9 in the northwest of Pigeon River, township of Emily, county of Victoria, Ont. | 220 00 |
| 17907 | " 3.. | O. Stewart <i>et al.</i> | Damages to lots Nos. 12, 13, 14, 15 and 16, in the 18th concession, and lot No. 15 in the 17th concession, in the township of Otonabee, county of Peterborough, Ont. | 1,200 00 |
| 17908 | " 19.. | John Morrissey <i>et ux</i> | Damages to part of lot No. 16, in the 7th concession of the township of Emily, county of Victoria, Ont. | 30 00 |
| 17909 | Aug. 11.. | John McCarrell <i>et ux.</i> | Damages to the southeast quarter of lot No. 21 in the 4th concession of the township of Emily, county of Victoria. | 130 00 |
| 17910 | " 6.. | John Carroll <i>et al.</i> | Damages to part of lot No. 16 in the 7th concession of the township of Emily, county of Victoria. | 100 00 |
| 17911 | " 7 | Samuel F. Fee <i>et al.</i> | Damages to the north half of lot No. 12 in the 5th concession of the township of Emily, county of Victoria. | 90 00 |

1 GEORGE V., A. 1911

DAMAGES released to the Department of Railways and Canals during the Fiscal Year ended March 31, 1910—*Continued.*TRENT CANAL—*Continued.*

| No. of Re-lease. | Date of Signature. | Grantor. | Description. | Amount. |
|------------------|--------------------|---|---|---------|
| | 1909. | | | \$ cts. |
| 17912 | May 3.. | Benjamin N. Harris <i>et al.</i> ... | Damages to lot No. 20 in the 17th concession of the township of Harvey, county of Peterborough, Ont. | 60 00 |
| 17913 | June 30.. | James C. Dickey <i>et al.</i> | Damages to broken lot No. 6 and north part of lot No. 8 in the 11th concession of the township of Percy, county of Northumberland, Ont. | 136 00 |
| 17914 | July 17.. | Matthew Brackenridge <i>et al.</i> | Damages to the west half of lots Nos. 2 and 3 in the 3rd concession of the township of Asphodel, county of Peterborough, Ont. | 380 00 |
| 17930 | Aug. 11.. | Mosom Boyd Company.... | Damages to lots Nos. 12 and 13 in the 19th concession of the township of Verulam, county of Victoria, Ont. | 280 00 |
| 17939 | " 21.. | David F. Weir <i>et al.</i> | Damages to the south half of lot No. 18 and the north half of lot No. 19, in the 8th concession of the township of Emily, county of Victoria. | 100 00 |
| 17949 | " 21.. | Wm. A. Nurse <i>et al.</i> | Damages to the west half of lot No. 17 in the 2nd concession of the township of South Monaghan, county of Northumberland, Ont. | 150 00 |
| 17950 | " 19.. | James Kerr <i>et al.</i> | Damages to lot No. 1 in the 10th concession of the township of Verulam, county of Victoria Ont. | 80 00 |
| 17951 | " 31.. | Francis McGuire <i>et ux.</i> | Damages to the east half of lot No. 11 in the 11th concession of the township of Percy, county of Northumberland, Ont. | 24 00 |
| 17952 | " 30.. | Martha Chambers | Damages to the east half of lot No. 20 and southwest half of lot No. 21 in the 4th concession of the township of Emily, county of Victoria, Ont. | 300 00 |
| 17974 | June 23.. | Joseph Harrington <i>et al.</i> | Damages to part of island 'A' and whole island 'B' in the township of Harvey, county of Peterborough, Ont. | 500 00 |
| 17975 | Sept. 2.. | Andrew and Jos. McCarroll <i>et al.</i> | Damages to southeast quarter of lot No. 19, concession 4, township of Emily, county of Victoria, Ont. | 40 00 |
| 17984 | Aug. 16.. | Mary Atwell <i>et al.</i> | Damages to south half of lot No. 11, concession 7, township of Emily, county of Victoria, Ont. | 48 00 |
| 17985 | " 16.. | Thos. Atwell <i>et ux.</i> | Damages to southwest quarter of lot No. 12, concession 7, township of Emily, county of Victoria, Ont. | 32 00 |
| 17995 | Sept. 18.. | Thomas Woods <i>e ux.</i> | Damages to the north part of lot No. 11 and south half of lot No. 12, in the 6th concession of the township of Emily, county of Victoria, Ont. | 180 00 |
| 17996 | Aug. 9.. | Thomas J. Wallace <i>et al.</i> ... | Damages to southwest quarter of the east half of lot No. 10, in the 7th concession of the township of Otonabee, county of Peterborough, Ont. | 70 00 |
| 17997 | July 13.. | Alfred Dawson <i>et ux.</i> | Damages to lot No. 31 and part of lot No. 35, in the 9th concession of the township of Hamilton, county of Northumberland, Ont. | 120 00 |
| 18007 | " 16.. | William D. Moncrief <i>et al.</i> ... | Damages to part of lots Nos. 28 and 29, in the 10th concession of the township of Hamilton, county of Northumberland, Ont. | 60 00 |
| 18014 | " 30.. | William G. Brown <i>et al.</i> | Damages to part of lots 7 and 8 in the 8th concession of the township of Otonabee, county of Peterborough, Ont. | 340 00 |
| 18015 | " 31.. | John E. Curtis <i>et al.</i> | Damages to lot No. 5, 3rd concession of the township of Alawick, county of Northumberland, Ont. | 376 00 |
| 18048 | Oct. 23.. | Wm. Wedlock <i>et al.</i> | Damages to part of lot 15 and part of lot 13 in the 6th concession of the township of Otonabee, county of Peterborough, Ont. | 140 00 |
| 18066 | Aug. 18.. | Jno. J. Blackwell <i>et al.</i> | For damages to south quarter of lot No. 13 in the 7th concession of the township of Emily, county of Victoria, Ont. | 40 00 |
| 18081 | Nov. 19.. | Jno. Brackenbridge <i>et ux.</i> ... | Damages to lot No. 2 and west half of lot No. 3 in the 5th concession of the township of Asphodel, county of Peterborough, Ont. | 110 00 |
| 18188 | July 22.. | Chas. McCaffrey <i>et ux.</i> .. | Damages to park lots 1 and 'N' in the village of Omemee, township of Emily, county of Victoria, Ont. | 20 00 |
| 18189 | " 22.. | James Middleton..... | Damages to lot No. 21 in the 15th concession of the township of Smith, county of Peterborough, Ont. | 25 00 |
| 18229 | April 23.. | Austin Sherwin..... | Damages to 40 acres of land: east half and east part of west half of lot No. 3 in the 2nd concession of the township of Alawick, county of Northumberland, Ont. | 40 00 |
| 18230 | Nov. 15.. | Chas. McIlmoyle <i>et ux.</i> | For damages to part of north half of lot No. 19 in the 16th concession of the township of Harvey, county of Peterborough, Ont. | 30 00 |

SESSIONAL PAPER No. 20

DAMAGES released to the Department of Railways and Canals during the Fiscal Year ended March 31, 1910—*Continued.*

TRENT CANAL—*Continued.*

| No. of Re-lease. | Date of Signature. | Grantor. | Description. | Amount. |
|------------------|--------------------|--------------------------------------|--|---------|
| | 1909. | | | \$ cts. |
| *18233 | Feb. 16.. | Jas. R. Boate <i>et al.</i> | For damages to north half of lot No. 21, in the 4th concession, and to lot No. 22 in the 5th concession of the township of Emily, county of Victoria, Ont. | 300 00 |
| 18234 | May 22.. | Thos. G. Gibbs <i>et ux.</i> | For damages to south half of lot 18 and to north-east quarter of lot No. 17 of the 16th concession of the township of Otonabee, county of Peterborough, Ont. | 400 00 |
| 18235 | Aug. 18.. | Sndy Matchett <i>et ux.</i> | For damages to part of lot No. 19, concession 16, of the township of Otonabee, county of Peterborough, Ont. | 255 00 |
| 18236 | July 23.. | John McCauley <i>et al.</i> | Damages to west part of lot No. 3 in the 5th concession of the township of South Burleigh, county of Peterborough, Ont. | 128 00 |
| 18237 | Dec. 28.. | Patrick Bolin <i>et al.</i> | Damages to lots 8, 9 and 10, in the 7th concession of the township of Otonabee, county of Peterborough, Ont. | 88 00 |
| 18238 | July 10.. | John Riddell <i>et al.</i> | Damages to east half of lot No. 13, concession 4, and east half of lot No. 13, concession 5, of the township of South Monaghan, county of Northumberland, Ont. | 200 00 |
| 18291 | Dec. 4.. | Matthew McIlmoyle <i>et ux.</i> .. | For damages by water to south half of lot No. 19, concession 16, of the township of Harvey, county of Peterborough, Ont., also part of west half of north half of said lot No. 19. | 12 00 |
| | 1910. | | | |
| 18450 | Mar. 19.. | Bruce Savigny <i>et ux.</i> | Damages to the east half of lot No. 15, 17th concession of the township of Otonabee, county of Peterborough, Ont. | 156 00 |
| | 1909. | | | |
| 18451 | June 26.. | Fred. W. Stockdale <i>et al.</i> ... | Damages to island 'A' in the township of Harvey, county of Peterborough, Ont. | 133 00 |
| 18452 | " 11.. | George Brown <i>et ux.</i> | Damages to lot No. 20, in the 7th concession of the township of Alnwick, county of Northumberland, Ont. | 30 00 |
| 18453 | Dec. 31.. | Thos. J. Cullen <i>et ux.</i> | Damages to lot No. 22 and to the north half of lot 23 in the 16th concession of the township of Smith, county of Peterborough, Ont. | 100 00 |
| 18454 | Sept. 23.. | Wm. F. Trude <i>et al.</i> | Damages to lots Nos. 24 and 25 in the 15th concession of the township of Smith, county of Peterborough, Ont. | 240 00 |
| 18455 | May 3.. | Thos. McCracken..... | Damages to lot No. 22 in the 7th concession of the township of Alnwick, county of Northumberland, Ont. | 40 00 |
| 18456 | Nov. 13.. | Samuel Tate <i>et al.</i> | Damages to lots Nos. 16 and 17 in the 14th concession, and the east half of lot No. 18 in the 15th concession of the township of Harvey, county of Peterborough, Ont. | 64 00 |
| 18457 | June 26.. | Patrick Crowley <i>et al.</i> | Damages to lot No. 3 in the 5th concession of the township of Asphodel, county of Peterborough, Ont. | 320 00 |
| 18458 | Aug. 7.. | Patrick English..... | Damages to west half of lot No. 9 in the 11th concession of the township of Percy, county of Northumberland, Ont. | 56 00 |
| 18460 | April 22.. | Wm. Windsor <i>et al.</i> | Damages to west quarter of lot No. 4 in the 3rd concession of the township of Burleigh, county of Peterborough, Ont. | 100 00 |
| 18461 | Oct. 9.. | Thos. Davidson <i>et ux.</i> | Damages to lot No. 6 in the 2nd concession of the township of Asphodel, county of Peterborough, Ont. | 45 00 |
| 18462 | Nov. 29.. | Richard Byrnell <i>et al.</i> | Damages to part of lot No. 23 in the 8th concession and part of lot No. 23 in the 9th concession of the township of Fenelon, county of Victoria, Ont. | 40 00 |
| | 1910. | | | |
| 18463 | Jan. 10.. | Elizabeth A. Fowler <i>et al.</i> .. | Damages to lots Nos. 15 and 15 in the 9th concession of the township of Smith, county of Peterborough, Ont. | 16 00 |

* Too late for last year's report.

1 GEORGE V., A. 1911

DAMAGES released to the Department of Railways and Canals during the Fiscal Year ended March 31, 1910—*Continued.*

TRENT CANAL—*Continued.*

| No. of Re-lease. | Date of Signature. | Grantor. | Description. | Amount. |
|------------------|--------------------|---------------------------------------|--|---------|
| | 1909. | | | \$ cts. |
| 18464 | July —.. | David J. Ball <i>et al.</i> | Damages to west half of east half of lot No. 7 in the 10th concession of the township of Harvey, county of Peterborough, Ont. | 12 00 |
| 18467 | May 8.. | William S. Rutherford <i>et al.</i> | For damages by water to north three-quarters of lot No. 6 in the 3rd concession of the township of South Monaghan, county of Northumberland, Ont. | 220 00 |
| 18470 | July 17.. | Archibald Johnston..... | For damages by water to lots Nos. 1 and 2, and to lot 'A,' in the 14th concession of the township of Harvey, county of Peterborough, Ont. | 200 00 |
| 18472 | May 29.. | Hugh Allen <i>et ux.</i> | For damages by water to the east half of lot No. 3, in the 14th concession of the township of Harvey, county of Peterborough, Ont. | 96 00 |
| 18473 | July 27.. | Michael D. Wallace <i>et ux.</i> .. | For damages by water to the north half of the southwest quarter of lot No. 8; the north half of the southwest half of lot No. 9; the north half of the southeast quarter of lot No. 9, and the south half of the northwest quarter of lot No. 8, in the 7th concession of the township of Otonabee, county of Peterborough, Ont. | 144 00 |
| 18471 | Dec. 1 .. | Alexander Reid <i>et al.</i> . . . | Damages by water to part of lot No. 3, in the 4th concession of the township of South Burleigh, in the county of Peterborough, Ont. | 120 00 |
| | 1910. | | | |
| 18474 | Feb. 26.. | James Gilchrist Burnham <i>et al.</i> | Damages by water to northeast quarter of lot No. 11, and to parts of lots 12, 13 and 14, concession 6, township of Otonabee, county of Peterborough, Ont. | 424 00 |
| | 1909. | | | |
| *18475 | Feb. 5.. | Darius G. Hall <i>et al.</i> | For damages by water to lot No. 2, in the 11th concession of the township of Harvey, county of Peterborough, Ont. | 130 00 |
| 18476 | May 15.. | Isabel Eastwood <i>et al.</i> . . . | Damages by water to island No. 78, in Stoney lake, in the township of Burleigh, in the county of Peterborough, Ont. | 200 00 |
| *18477 | Feb. 10.. | George W. Bennett <i>et al.</i> ... | For damages by water to island No. 56, of the township of Peterborough, Ont. | 150 00 |
| 18478 | April 1.. | John Faux <i>et al.</i> | Damages by water to parts of broken lots 12 and 13 in the 2nd concession of the township of Otonabee, county of Peterborough, Ont. | 500 00 |
| *18479 | Jan. 26.. | William James Northey <i>et ux.</i> | Damages by water to lot No. 27, in the 14th concession of the township of Smith, in the county of Peterborough, Ont. | 42 00 |
| 18480 | June 21.. | Archibald Wilson <i>et al.</i> | For damages by water to lot No. 2, in the 16th concession of the township of Harvey, county of Peterborough, Ont. | 245 00 |
| | 1910. | | | |
| 18481 | Feb. 8.. | Daniel Ward <i>et al.</i> | For damages by water to the west half of lot No. 22, in the 16th concession of the township of Harvey, county of Peterborough, Ont. | 300 00 |
| | 1909. | | | |
| 18482 | June 24.. | George Walford Hatton.... | For damages by water to part of lot No. 3, in the 7th concession, and to the east half of lot No. 2, in the 6th concession of the township of South Burleigh, in the county of Peterborough, Ont. | 192 00 |
| | 1910. | | | |
| 18483 | Jan. 29.. | Martha Perrin <i>et al.</i> | For damages by water to parts of lots Nos. 17 and 18, in the 2nd concession of the township of South Monaghan, county of Northumberland, Ont. | 240 00 |
| | 1909. | | | |
| 18484 | June 19.. | Robert James Gray <i>et al.</i> .. | For damages by water to parts of west half of lot No. 8, and to parts of west half of lot No. 7, in 10th concession of the township of Otonabee, in the county of Peterborough, Ont. | 500 00 |
| 18485 | May 22.. | James Carlington Foley <i>et al.</i> | Damages by water to the west half of lot 11, and to the west half of lot No. 12, in the 4th concession of the township of Otonabee, county of Peterborough, Ont. | 320 00 |

* Too late for last year's report.

SESSIONAL PAPER No. 20

DAMAGES released to the Department of Railways and Canals during the Fiscal Year ended March 31, 1910—*Continued.*

TRENT CANAL—*Continued.*

| No. of Re-lease. | Date of Signature. | Grantor. | Description. | Amount. |
|------------------|--------------------|-------------------------------------|---|-----------|
| | 1909. | | | \$ ots. |
| 18486 | Dec. 16.. | John Moncrief <i>et ux</i> | Damages by water to the southwest quarter of lot No. 13, in the 1st concession of the township of South Monaghan, county of Northumberland, Ont. | 40 00 |
| | 1910. | | | |
| 18487 | Feb. 1.. | John Brandon Beatty <i>et al.</i> | For damages by water to the south half of the west half of lot No. 25, in the 16th concession of the township of Harvey, county of Peterborough, Ont. | 75 00 |
| | 1909. | | | |
| 18488 | Aug. 14.. | William McIlmoyle <i>et ux</i> | Damages by water to part of lot 21, in the 15th concession of the township of Smith, county of Peterborough, Ont. | 25 00 |
| | 1910. | | | |
| 18489 | Feb. 26.. | William Beatty <i>et al.</i> | Damages by water to the south quarter of lot No. 20, concession 16, of the township of Harvey, county of Peterborough, Ont. | 24 00 |
| | 1909. | | | |
| 18490 | Oct. 23.. | William Wedlock <i>et al.</i> | Damages by water to part of lot No. 13, parts of the southwest quarter of lot No. 14, part of the east half of lot No. 14, and parts of lot 15, in the 6th concession of the township of Otonabee, county of Peterborough, Ont. | 600 00 |
| *18491 | Mar. 2.. | Bruce Johnston <i>et al.</i> | For damages by water to part of lot No. 10, in the 10th concession of the township of North Monaghan, county of Peterborough, Ont. | 720 00 |
| | 1910. | | | |
| 18492 | Feb. 26.. | Morgan Adam <i>et al.</i> | For damages by water to east half of lot No. 28, in the 14th concession of the township of Smith, county of Peterborough, Ont. | 24 00 |
| 18493 | " 11.. | George Whittington <i>et al.</i> .. | For damages by water to lot No. 17, and part of lot No. 16, in the 3rd concession of the township of South Monaghan, county of Northumberland, Ont. | 240 00 |
| | 1909. | | | |
| 18494 | Dec. 30.. | David Bardow <i>et al.</i> | For damages by water to the west half of lot No. 24, in the 16th concession of the township of Harvey, in the county of Peterborough, Ont. | 50 00 |
| | 1910. | | | |
| 18495 | Jan. 15.. | Frank Howard Savigny <i>et al.</i> | Damages by water to part of the east half of lot No. 15, in the 17th concession of the township of Otonabee, county of Peterborough, Ont. | 65 00 |
| 18496 | " 15.. | Thomas Thomson <i>et ux</i> | For damages by water to lot No. 4, and part of lot No. 1, block 'A,' township of Otonabee, county of Peterborough, Ont. | 60 00 |
| | 1909. | | | |
| 18497 | May 22.. | Henry G. Nisbett..... | For damages by water to west half of lots Nos. 4 and 5, in the 16th concession of the township of Harvey, county of Peterborough, Ont. | 140 00 |
| 18498 | June 19.. | David Hutchison <i>et ux</i> | For damages by water to lot No. 14, in the 17th concession of the township of Otonabee, county of Peterborough, Ont. | 650 00 |
| 18499 | June 19.. | Walter Thompson <i>et ux</i> | Damages by water to lot No. 7, in the 9th concession of the township of Otonabee, county of Peterborough, Ont. | 1,100 00 |
| | 1910. | | | |
| 18500 | Feb. 1.. | Rupert H. Bradburn <i>et al</i> | For damages by water to west half of lot No. 12, in the 17th concession of the township of Otonabee, county of Peterborough, Ont. | 240 00 |

* Too late for last year's report.

1 GEORGE V., A. 1911

DAMAGES released to the Department of Railways and Canals during the Fiscal Year ended March 31, 1910—*Concluded.*

TRENT CANAL—*Concluded.*

| No. of Re-lease. | Date of Signature. | Grantor. | Description. | Amount. |
|------------------|--------------------|-------------------------------------|--|---------|
| | 1909. | | | \$ cts. |
| 18501 | Dec. 21.. | Lewis Parker <i>et al.</i> | For damages by water to part of lot 19, in the 15th concession, east of Eel's creek, township of Harvey, county of Peterborough, Ont. | 60 00 |
| 18502 | Nov. 24.. | Benjamin Kindred <i>et al.</i> | For damages by water to northwest quarter of lot No. 8, in the 8th concession of the township of Otonabee, county of Peterborough, Ont. | 160 00 |
| 18503 | Dec. 17.. | Matilda Wright <i>et al.</i> | Damages by water to the south half of lot No. 4, in the 7th concession of the township of North Monaghan, in the county of Peterborough, Ont. | 200 00 |
| 18504 | June 23.. | Ellen Cadigan <i>et al.</i> | Damages by water to part of lot 4, and to the north-east quarter of lot 5, in the 10th concession of the township of Ennismore, county of Peterborough, Ont. | 225 00 |
| *18505 | Mar. 8.. | Daniel Cadigan <i>et al.</i> | Damages by water to parts of lots 4 and 5, in the 10th concession of the township of Ennismore, county of Peterborough, Ont. | 250 00 |
| 18506 | June 12.. | Eleanor A. Allen..... | For damages by water to lot No. 4, in the 14th concession of the township of Harvey, county of Peterborough, Ont. | 150 00 |
| | 1910. | | | |
| 18507 | Mar. 1.. | Nathaniel Crowe <i>et al.</i> | Damages by water to part of the west half of lot No. 18, in the 15th concession of the township of Harvey, county of Peterborough, Ont. | 35 00 |
| | 1909. | | | |
| 18513 | May 4.. | John B. McWilliams <i>et ux.</i> | Damages by water to lots Nos. 2 and 3, in the 11th concession of the township of South Burleigh, and to island No. 47, in the township of Dummer, county of Peterborough, Ont. | 400 00 |

* Too late for last year's report.

H. F. ALWARD,
Departmental Solicitor.

PART III

REPORTS OF THE GOVERNMENT RAILWAY BOARD
AND OTHER OFFICIALS FOR THE
YEAR 1909-1910.

1. Government Railways Managing Board.
W. B. MacKenzie, Chief Engineer, I.C.R.
T. C. Burbee, Engineer of Maintenance, I.C.R.
G. R. Joughins, Superintendent of Motive Power, I.C.R.
S. L. Shannon, Comptroller, I.C.R.
2. T. C. Burbee, Engineer of Maintenance, Windsor Branch.
S. L. Shannon, Comptroller, Windsor Branch.
3. W. B. MacKenzie, Chief Engineer, P.E.I. Ry.
G. A. Sharpe, Superintendent, P.E.I. Ry.
W. S. Poole, Mechanical Superintendent, P.E.I. Ry.
W. T. Huggan, Accountant and Auditor, P.E.I. Ry.
4. Chairman and Secretary of Government Railways Provident Fund.

MONCTON, N.B., July 6, 1910.

SIR.—The Government Railways Managing Board have the honour to submit the following report on the working of the Government Railways during the fiscal year ended March 31, 1910.

The board was constituted by an order in council, dated April 20, 1909, and the following were appointed its members, namely:—

Mr. M. J. Butler, Deputy Minister and Chief Engineer of the Department of Railways and Canals, chairman of the board.

Mr. David Pottinger, I.S.O.

Mr. E. Tiffin, general traffic manager.

Mr. F. P. Brady, general superintendent.

Subsequently on February 5, 1910, Mr. Butler having resigned, Mr. A. W. Campbell, C.E., Deputy Minister of the Department of Railways and Canals, was appointed chairman of the board, and Mr. D. Pottinger, assistant chairman, by order in council, dated February 3, 1910.

The board, therefore, from February 5 to March 31, 1910, was constituted as follows:—

Mr. A. W. Campbell, C.E., chairman, Ottawa.

Mr. D. Pottinger, I.S.O., assistant chairman, Moncton.

Mr. E. Tiffin, general traffic manager, Moncton.

Mr. F. P. Brady, general superintendent, Moncton.

The board held its first meeting on May 26, 1909, at Montreal.

There were twenty-three meetings in all from that date to March 31, 1910, ten of them in Montreal, eleven in Moncton and two elsewhere along the line of railway.

The railways under the control of the board are:—

The Intercolonial railway, the Windsor Branch railway, and the Prince Edward Island railway.

Separate accounts are kept for each of these railways, and they will be considered separately in this report.

THE INTERCOLONIAL RAILWAY.

The following reports of officials are inclosed:—

Report of the Chief Engineer on the works charged to capital account.

Report of the Engineer of Maintenance on the repair and renewal of the permanent way buildings and works.

Report of the Superintendent of Motive Power, and of the Mechanical Department's Accountant, with the statements relating to the Mechanical Department.

Also the general accounts of the railway prepared by the comptroller, as follows:—

1. Capital account.

2. Revenue account.

3. Maintenance of way and structures.

4. Maintenance of equipment.

5. Traffic expenses.

6. Transportation expenses.

7. General expenses.

8. General stores account.

9. General balance.

10. Statement of averages.

Return of casualties:

9-10 EDWARD VII., A. 1910

The length of railway in operation during the year was the same as last year, 1,447.13 miles.

CAPITAL ACCOUNT.

The cost of road and equipment on March 31, 1909, was \$90,994,664.06. The additions during the year were as follows:—

| | |
|---|-----------------|
| Campbellton—improvements | \$ 1,988 49 |
| Chatham—diversion of line and branch to wharf | 5,228 44 |
| Chaudiere Junction—engine house, &c. | 6,834 61 |
| Dalhousie—extension to wharf | 27,500 00 |
| Eastville—to provide a subway crossing, about one mile south of Londonderry station | 68 75 |
| Halifax—increased accommodation. | 179,953 93 |
| Indiantown and Blackville—to put line into condition for operation. | 49 994 90 |
| Loggieville—improvements | 25,474 27 |
| Moncton—locomotive and car shops with equipment and new freight yard. | 399,400 49 |
| Moncton—cut-off line at. | 1,975 15 |
| Mulgrave—improvements | 18,403 15 |
| Newcastle—improvements | 2,472 16 |
| North Sydney—improvements | 5,771 37 |
| Pictou—increased accommodation. | 800 64 |
| Point Tupper—improvements. | 3,998 88 |
| Probert's—to provide an overhead crossing, about two miles north of Londonderry station. | 43 14 |
| Riviere du Loup—engine house, machine shops, &c | 156,945 33 |
| Sackville—improvements | 7,875 81 |
| Sydney Mines to River George—diversion of line. | 20,256 36 |
| St. Cyrille and Drummondville—diversion of public road to eliminate a crossing at rail level. | 1,300 00 |
| Ste. Flavie—increased accommodation | 3,754 26 |
| Ste. Rosalie—improvements. | 3,540 32 |
| Truro—increased accommodation | 17,019 51 |
| New machinery for locomotive and car shops. | 95,799 43 |
| Construction—original. | 6,644 09 |
| Double tracking parts of line | 68,977 65 |
| Increased accommodation and facilities. | 100,565 28 |
| New turn-tables. | 2,696 13 |
| Strengthening bridges | 10,272 26 |
| Rolling stock. | 10,430 54 |
| To increase water supply. | 42,482 26 |
| | <hr/> |
| | \$1,278,467 60 |
| Less: | |
| To extension to Sydney Mines, 1908-09. | \$ 4 90 |
| To increased accommodation at Stellarton, 1908-09. | 53 25 |
| | <hr/> |
| | 58 15 |
| | <hr/> |
| | 1,278,409 45 |
| | <hr/> |
| Making the total cost on March 31, 1910. | \$92,273,073 51 |

The explanation of the above deductions is as follows:
The \$4.90 is a refund of an amount overpaid for legal services.

SESSIONAL PAPER No. 20

The amount of \$53.25 is composed of two sums, a cheque for \$50 was issued to pay for land, the person in whose favour the cheque was drawn refused to accept the amount offered, and the cheque was cancelled, the \$3.25 is a credit for express charges refunded.

Explanations in regard to the expenditures on capital account will be found in the report of the chief engineer, and in the report of the superintendent of motive power.

REVENUE ACCOUNT.

The gross earnings and the working expenses for the year compare as follows:—

| | |
|--------------------------|----------------|
| Gross earnings | \$9,268,234 99 |
| Working expenses | 8,645,070 33 |

Net earnings \$ 623,164 66

The gross earnings compare as follows with those of the previous year:—

| | |
|--------------------|----------------|
| In 1909-10 | \$9,268,234 99 |
| 1908-09 | 8,527,069 46 |

Increase \$ 741,165 53

The earnings from passenger traffic compare as follows:—

| | |
|--------------------|----------------|
| In 1909-10 | \$2,765,884 66 |
| 1908-09 | 2,628,218 57 |

Increase \$ 137,666 09

The earnings from freight traffic compare as follows:—

| | |
|--------------------|----------------|
| In 1909-10 | \$6,048,884 18 |
| 1908-09 | 5,502,550 58 |

Increase \$ 546,333 60

The earnings from mails and express freight compare as follows:—

| | |
|--------------------|--------------|
| In 1909-10 | \$453,466 15 |
| 1908-09 | 396,300 31 |

Increase \$ 57,165 84

The earnings by mile of railway compare as follows:—

| | |
|--------------------|------------|
| In 1909-10 | \$6,404 56 |
| 1908-09 | 5,892 40 |

Increase \$ 512 16

The earnings by train compare as follows:—

| | |
|--------------------|--------|
| In 1909-10 | \$1 39 |
| 1908-09 | 1 24 |

The number of passengers carried compares as follows:—

| | |
|--------------------|-------------|
| In 1909-10 | \$3,122,324 |
| 1908-09 | 2,907,237 |

Increase \$ 215,087

There was an increase of 217,330 in the number of local passengers, and a decrease of 2,243 in the number of through passengers.

9-10 EDWARD VII., A. 1910

The weight of revenue producing freight compares as follows:—

| | Tons. |
|----------------------|-----------|
| In 1909-10.. | 3,927,240 |
| 1908-09.. | 3,573,972 |
| | <hr/> |
| Increase | 353,268 |

There was an increase in local freight of 216,188 tons, and also an increase in through freight of 137,080 tons.

A number of statements which give detailed information in regard to the traffic are appended to this report. They are as follows:—

Statement of receipts, showing the receipts monthly from passenger traffic, freight traffic and mails and sundries.

Passenger statement showing monthly the number of local and of through passengers carried, and the mileage.

Freight statement showing monthly the number of tons of local and of through freight carried, and the mileage.

Comparative statement of the principal articles of freight carried during this year and the preceding year.

Descriptive statement of freight transported, showing a few of the principal articles.

Statement of coal transported showing the stations from which it was sent.

Statement showing the quantity of raw and of refined sugar, of fresh and salted fish, of grain for export, and of European freight carried over the railway.

Statements of the ocean borne passenger business at Halifax, at St. John and at Quebec, showing the number of passengers received by the railway from each of the steamers named.

Statements of ocean borne freight traffic at Halifax and at St. John, showing the quantity of freight imported and exported by the lines of steamers named and carried over the railway.

WORKING EXPENSES.

The working expenses compare as follows with the previous year:—

| | |
|----------------------|----------------|
| In 1909-10.. | \$8,645,070 33 |
| 1908-09.. | 9,328,021 55 |
| | <hr/> |
| Decrease.. | \$ 682,951 22 |

The averages compare with those of last year as follows:—

Per mile run by engines—

| | |
|----------------------|--------|
| In 1909-10.. | 1.0042 |
| 1908-09.. | 1.0129 |

Per mile run by trains—

| | |
|----------------------|------|
| In 1909-10.. | 1.29 |
| 1908-09.. | 1.35 |

Working expenses per mile of railway—

| | |
|----------------------|------------|
| In 1909-10.. | \$5,973 94 |
| 1908-09.. | 6,445 89 |

The Engineer of Maintenance reports that the track, bridges and structures of the railway have been kept in good repair.

During the year 600,163 ordinary ties and 288 sets of switch ties were put in. 56.38 miles of track were reballasted, 67,659 cubic yards of ballast being used. 3.85 miles of additional sidings were provided at various points.

SESSIONAL PAPER No. 20

Bridges, culverts, wharfs and buildings received necessary repairs.

The fences were repaired and 47.42 miles of fences were built.

The snow sheds and snow fences were repaired.

The Superintendent of Motive Power in his report which is sent herewith states that the general condition of the rolling stock is good.

One box freight car, sixteen platform cars and one flanger car were rebuilt in the railway shops to replace an equal number taken out of service.

Thirty steel side dump coal cars were purchased to replace coal cars of an equal capacity taken out of service. Six box baggage cars were purchased to replace an equal number of cars taken out of service.

All the above were charged to working expenses.

STORES.

| | |
|--|----------------|
| The value of stores purchased was.. . . . | \$2,800,212 24 |
| The value of stores used was.. . . . | 3,363,105 44 |
| The value of material sold was.. . . . | 225,144 67 |
| The value of stores on hand at the end of the year was:— | |
| Miscellaneous.. . . . | \$ 511,892 90 |
| Fuel | 416,911 37 |
| Roadway and bridge material | 314,377 42 |
| <hr/> | |
| Total.. . . . | \$1,243,181 69 |

ACCOUNTS.

During the session of parliament of 1908-09, the Select Standing Committee on Public Accounts inquired into and considered the various items composing the general balance of the railway, and recommended that items amounting to \$153,731.04 which were found to be uncollectable be eliminated from the general balance. This recommendation was approved by parliament and the items were transferred to Dominion account accordingly.

GENERAL.

The winter of 1909-10 was comparatively mild and more favourable to the working of the railway than the previous year. There were several heavy snowstorms, but they caused very little delay to trains. The expenditure for clearing snow and ice was \$91,124.29. The sudden and extreme changes of temperature experienced during the winter made it very trying to the rolling stock and also to the track.

On August 3, 1909, the coal shed at Richmond was destroyed by fire, together with about 50 tons of coal. The trestle leading to the coal shed was partly burned. Thirteen light box cars, one cattle car, one gondola car, seven large coal hopper cars and two small coal hoppers were also destroyed in the same fire. The balance of the coal in the shed was saved, some of it in a damaged condition.

On November 17, 1909, the car service building at Moncton, the ground floor of which was occupied by the trainmen's rest rooms and by the express companies, and the upper floor of which contained the offices of the car service department, was considerably damaged by fire, one end of the building being destroyed with all the car service records. Temporary accommodation was provided for the occupants of the building until it was rebuilt.

Between April 15 and 23, 1909, considerable trouble was experienced on the portion of the line between Gibson and Blackville in consequence of high water. Heavy rains set in and the freshets caused several washouts and earth slides; the ice jammed in the Miramichi river and the water rose and overflowed the track to a depth of several

9-10 EDWARD VII., A. 1910

feet at a number of places, the track at McNamee's flats being under the water for some distance for several days. During that time the movement of freight traffic was interrupted, and passengers and mails were transported only with difficulty and some delay, a transfer having to be made by teams at places where the trains could not get through. When the water had subsided and the repairs to the roadway and track were being made it was found desirable to raise the track at McNamee's and an expenditure of \$1,000 was made on that account.

From September 27 to 30, 1909, trouble was again experienced on the same portion of the line from washouts, earth slides and overflow of water, in consequence of continual heavy rains. The movement of freight was again delayed. Passenger trains were also delayed on that account. The total cost of repairing the damage done on the above section of the road amounted to \$2,673.65.

On October 1, 1909, there were several washouts in the neighbourhood of Dorchester, caused by high tides in the Petitcodiac river, and trains, both passenger and freight, were delayed to some extent in consequence. When repairing these washouts, it was decided to raise the level of the track in certain places by filling so as to afford better protection for the future, and this was done at a cost of \$3,426.56—6,660 cubic yards of material being used for the purpose.

On October 25 and 26, 1909, a succession of heavy rain storms caused a number of washouts at different places on the line between New Glasgow and Mulgrave; the most serious ones being Sylvan Valley Mills, Pomquet, Afton and Delorey's. All traffic over that portion of the road was interrupted for twenty-four hours. The cost of repairing the damage done amounted to \$2,141.78.

WINDSOR BRANCH RAILWAY.

This line extends from Windsor Junction to Windsor, N.S., and is 32 miles in length. It is under lease to the Dominion Atlantic Railway Company, which operates the line, and which has also running powers over the Intercolonial railway between Windsor Junction and Halifax.

The Windsor branch is maintained by the government, and the company pays to the government one-third of the gross earnings.

The following statements of the accounts prepared by the comptroller are inclosed:—

- No. 1. Revenue account.
- No. 2. Maintenance of way and structures.
- No. 3. General balance.
- No. 4. Statement of earnings.

Also the report of the Engineer of Maintenance on the work done during the year, and on the condition of the branch.

| | |
|---|-------------|
| The revenue ($\frac{1}{3}$ earnings) was.. | \$60,653 98 |
| The cost of maintenance was.. | 23,549 90 |
| Net earnings.. | \$37,104 08 |

The earnings increased considerably over those of the previous year as follows:—

| | |
|-----------------------------|-------------|
| Earnings, 1909-10.. | \$60,653 98 |
| Earnings, 1908-09.. | 56,031 33 |
| Increase.. | \$ 4,622 65 |

The increase was in both passenger and freight traffic.

The Engineer of Maintenance reports that the track, bridges, and structures have been kept in good repair.

SESSIONAL PAPER No. 20

PRINCE EDWARD ISLAND RAILWAY.

This railway is 267.5 miles in length, and the gauge is 3 feet 6 inches.

The following reports of officials are enclosed:—

Report of the Chief Engineer on the works charged to capital account.

Report of the Superintendent, who sends statements of the various accounts prepared by the accountant and auditor, also the report of the Mechanical Superintendent and the statements in regard to that department, also the return of casualties which occurred during the year.

| | |
|---|----------------|
| The cost of road and equipment on March 31, 1909, | |
| was | \$8,258,967 94 |
| The expenditure during the year was.: | 206,396 97 |

| | |
|--|----------------|
| Making the total cost on March 31, 1910. . . . | \$8,465,364 91 |
|--|----------------|

The report of the superintendent and the report of the chief engineer give the details and explanations in regard to capital expenditure.

| | |
|---|--------------|
| The working expenses for the year were. | \$427,283 73 |
| The gross earnings were. | 319,074 74 |

| | |
|---------------------|--------------|
| Deficiency. | \$108,208 99 |
|---------------------|--------------|

The gross earnings compare with the previous year as follows:—

| | |
|---------------------|--------------|
| In 1909-10. | \$319,074 74 |
| In 1908-09. | 311,319 63 |

| | |
|-------------------|-------------|
| Increase. | \$ 7,755 11 |
|-------------------|-------------|

The increase was in both passenger and freight traffic.

The working expenses compare with the previous year as follows:—

| | |
|---------------------|--------------|
| In 1909-10. | \$427,283 73 |
| In 1908-09. | 400,330 41 |

| | |
|-------------------|--------------|
| Increase. | \$ 16,953 32 |
|-------------------|--------------|

The necessary work was done to maintain the permanent way and works, and the rolling stock, and they are in a state of efficiency.

INTERCOLONIAL AND PRINCE EDWARD ISLAND RAILWAYS EMPLOYEES' PROVIDENT FUND.

The report of this fund which has been sent separately shows:—

| | |
|--|--------------|
| Credit balance on March 31, 1909. | \$225,898 31 |
| During the fiscal year the contributions of the em | |
| ployees amounted to | 69,949 70 |
| The contributions of the railways amounted to. | 69,949 70 |
| Amounts received for refunds | 483 06 |

| | |
|---------------------|--------------|
| A total of. | \$366,280 77 |
|---------------------|--------------|

| | |
|------------------------------------|------------|
| The total expenditure was. | 117,010 01 |
|------------------------------------|------------|

| | |
|-------------------------------|--------------|
| Leaving a balance of. | \$249,270 76 |
|-------------------------------|--------------|

| | |
|---|----------|
| To which is to be added the interest. | 6,314 32 |
|---|----------|

| | |
|--|--------------|
| Making a total amount to the credit of | |
| the fund on March 31, 1910. | \$255,585 08 |

9-10 EDWARD VII., A. 1910

During the year one hundred and sixty-eight employees were retired and placed upon the fund and seventeen have died, leaving three hundred and fifty-three persons on the list receiving an allowance from the fund at the end of the fiscal year. This is an increase of 151 persons compared with last year.

We have the honour to be, sir,

Your obedient servants,

A. W. CAMPBELL, Chairman.

D. POTTINGER, Assistant Chairman.

E. TIFFIN, General Traffic Manager.

F. P. BRADY, General Superintendent.

Government Railways Managing Board.

INTERCOLONIAL RAILWAY OF CANADA.

OFFICE OF THE CHIEF ENGINEER.

MONCTON, N.B., June 30, 1910.

SIR.—I have the honour to submit the following report on Capital Account expenditure for the fiscal year ending March 31, 1910:—

TOWARDS DOUBLE TRACKING PARTS OF THE LINE.

The double track between Moncton and Painssee Junction was completed and put in operation on August 22, 1909.

A concrete retaining wall with iron pipe railing was constructed for the protection of the street leading from Church street to St. George street; this was necessary on account of this street having been narrowed considerably by the excavation for the second track.

Electric signal gongs were installed for protection at the following crossings:—

Irishtown Road, Sunny Brae, and at Lutes, Queen, Robinson, Victoria, St. George and Church streets in the city of Moncton.

A signal tower was built and an interlocking plant installed for the protection of trains at the point where the Moncton and Buctouche railway crosses the Intercolonial.

.419 of an acre of land required for the right of way was purchased.

IMPROVEMENTS AT MULGRAVE.

The work in connection with the extension of the water pipe line, and construction of a reservoir for additional water supply for which the contract was let in the fiscal year 1908-09 was completed.

.3061 of an acre of land required for the reservoir was purchased.

A second track was laid on the main line from Pirate Harbour to Mulgrave, a distance of 1,986 lineal feet.

A brick house with concrete foundation was erected for the hoisting engine in connection with the transfer bridge of the Strait of Canso ferry service.

SESSIONAL PAPER No. 20

IMPROVEMENTS AT LOGGIEVILLE.

The station facilities at this point were remodelled and enlarged.

.688 of an acre of land was purchased.

A new five-stall brick engine house and annex, a standard cinder pit and ring wall for turntable were built. (The ring wall and turntable were charged to Capital Appropriation—'New Turntables.')

A steam heating apparatus was provided for the engine house.

A complete system of drainage was provided to carry drainage to the river about 900 feet distant from the engine house.

The water supply was extended from the existing tank through a line of 10-inch C. I. pipe to a stand pipe located near cinder pit, and from stand pipe to engine house and station. The tracks in yard were remodelled and lengthened by the laying of 2,805 feet of additional sidings.

The station was removed to a new location to suit the remodelled yard. It was also remodelled and extended. A new cellar and foundation was provided and new platform built. A new freight shed 20 feet by 60 feet with a freight platform was erected. On account of bad weather and early frost last fall, the work on the water service and drainage system was not completed.

The cast iron smoke jacks, water service and heating of engine house were not completed.

All the uncompleted work will be finished up early in the fiscal year of 1910-11.

All the work, excepting the freight house and platform was done by the day, as a large part of the material used was taken from other buildings that had been demolished. The freight house and platform were built under contract.

To increase accommodation at Truro—

The work in connection with the contract for the construction of a highway at the east end of the yard to take the place of Christie's lane was completed. The lane was closed by the construction of a track in the new yard.

The cribwork protection at the ends of the bridge abutments of the approaches to the new yard, was also completed.

An addition of six pockets were added to the existing coaling plant.

An office for the yardmaster was under construction by day labour, and will be completed in fiscal year 1910-11.

Some grading was done and 4,938 lineal feet of tracks laid in the new yard.

301,418 square feet of land required for yard accommodation were purchased.

To increase accommodation at Pictou.

A loading platform was provided and an addition added to the existing ice house.

Cut-off Line at Moncton.

Location surveys were made from Sunny Brae flag station to the vicinity of the new shops at Moncton, a total distance of 1.44 miles of double track.

Expropriation plans and descriptions for right of way were filed (October, 1909), and plans and specification prepared in readiness to ask tenders for construction.

Original Construction.—

Under this appropriation, the following amounts were paid: Marion S. Morrow, widow of Geoffrey Morrow; Chas. T. Mander, Deaf and Dumb Institution; and Henry N. Paint, \$5,906.25 for 118,125 square feet of land and land covered with water at Point Tupper. Imperial Oil Company, \$344 for repayment of expenses for removal of oil pipes and other property at Afrieville made necessary by the removal of the railway fence to the eastward in consequence of the double tracking of the Intercolonial railway between Richmond and Rockingham.

9-10 EDWARD VII., A. 1910

R. T. MacIlreith, \$219.94, for legal expenses in connection with the Imperial Oil Company's claim.

James Friel, \$10 for legal services *re* North River ballast pit.

P. S. Archibald, \$107.60, and Chief Engineer of the Intercolonial railway, \$38.15, for services and expenses in connection with case Montgomery vs. The King—Dalhousie water supply.

A. M. McLellan, \$18.15, for expenses *re* Cameron's siding, Sylvester.

Improvements at North Sydney—

An extension was built to the existing freight shed on the railway wharf.

To Strengthen bridges—

During the year bridges were erected at the following places:—

| | Feet. | Inches. |
|--|-------|---------|
| St. Octave—1 beam span.. | 13 | — 2 |
| St. Octave—1 beam span.. | 14 | — 0 |
| Kempt—1 beam span.. | 12 | — 9 |
| Kempt—1 beam span | 14 | — 9 |
| Cedar Hall—1 beam span.. | 17 | — 11 |
| Cedar Hall—1 beam span | 17 | — 5 |
| Cedar Hall—1 beam span.. | 14 | — 6 |
| Amqui—1 beam span.. | 13 | — 6 |
| Amqui—1 beam span.. | 13 | — 0 |
| Beau Rivage—1 beam span | 17 | — 6 |
| Beau Rivage—1 deck plate girder span | 34 | — 6 |
| Trois Saumons—1 deck plate girder span | 25 | — 0 |
| Hadlow—1 deck plate girder skew span | 56 | — 6 |
| St. Romuald—1 beam span | 14 | — 8 |
| St. Romuald—1 beam span.. | 15 | — 9 |
| St. Romuald—1 beam span.. | 16 | — 0 |
| St. Romuald—1 through plate girder span | 25 | — 5 |
| St. Romuald—1 beam span.. | 13 | — 5 |
| St. Romuald—1 beam span.. | 17 | — 3 |
| St. Romuald—1 beam span.. | 16 | — 3 |
| St. Romuald—1 beam span.. | 17 | — 4 |
| St. Romuald—1 deck plate girder span.. | 34 | — 6 |
| St. Romuald—1 deck plate girder span.. | 18 | — 9 |
| St. Romuald—1 beam span.. | 18 | — 9 |
| St. Romuald—1 beam span.. | 21 | — 0 |

The necessary alterations and painting in connection with the above bridges will be completed in fiscal year 1910-11.

The Hillside paving blocks that were delivered last year were laid on the Union street overhead bridge.

Improvements at Sackville.

The freight shed for which the contract was let last year was completed and the building wired for electric lighting. New freight scales were put in freight shed.

A cattle pen was provided. A roadway was made from the new freight shed on Intercolonial railway property to Lorne street.

The grading required around new freight house was completed and 775 lineal feet of tracks laid.

SESSIONAL PAPER No. 20

To increase accommodation at Halifax—

The contract work in connection with the 36-stall engine house and concrete annex, power house and for the supply and installation of a fan-heating system, steam and water pipes, &c., for the engine house were completed, but the final estimates were not paid on account of the appropriation being exhausted.

The 3-280 H.P. boilers, supplied under contract by the Canada Foundry Co., were erected in place on concrete foundations in the boiler house.

The oil house was equipped with a set of tanks and pumps, supplied under contract by the S. F. Bowser & Co., Ltd.

Alterations were made to the coaling pockets to facilitate the handling of coal for the low engines.

Improvements were made to the water supply system.

The work in connection with the moving of the electric plant from North street to the Willow Park yard and wiring the new buildings and yard was carried on during the year.

The final estimate in favour of Beazley Bros., on their contract for submarine blasting and dredging at Deep Water terminus was paid.

The balance due the contractor in connection with the double tracking of the Cotton Factory branch which was completed in 1908-09, was paid.

A trackman's tool house was erected on the Cotton Factory branch.

5.215 acres of land required for right-of-way for Cotton Factory branch were purchased.

13,835 lineal feet of tracks were laid in the Willow Park yard and ballasted.

For details of machinery, see report of G. R. Joughins, superintendent of motive power and rolling stock.

Diversion of line Sydney Mines to River George—

Surveys were made for a single track diversion from near George's River station to Sydney Mines, via the shore of Little Bras d'Or lake, a distance of 9.09 miles. Plans and specifications have been prepared and tenders asked for.

Diversion of line at Chatham and branch to wharf.

Location has been made from Nelson station, easterly through the town of Chatham, thence to a point about $1\frac{1}{4}$ miles east of the town limits three miles west of Loggieville and where the new line connects with the existing one. Length of new line, 8.28 miles.

Plans and specifications were prepared and tenders asked for.

Locomotive and car shops with equipment and new freight yard at Moncton—

Some additions and extensions were made to the internal arrangements of the locomotive and passenger car repair shops, and a terrano floor was put in the power house.

Additions were made to the water and drainage pipes.

10 96-inch diameter cast iron turntables were installed.

9 96-inch diameter steel turntables for trolley tracks were installed.

A 15-inch steam header for the steam boilers was erected.

2 chain grate stokers were provided for the boilers taken from the old shops.

A large area of excavation was made by steam shovel and 28,597 lineal feet of track laid and ballasted.

For details of machinery and electrical equipment, see report of G. R. Joughins.

New turntables—

The 75-foot steel turntable that was delivered at Loggieville in year 1908-09 was erected in place on a concrete centre foundation and ring wall.

1 GEORGE V., A. 1911

To increase water supply—

The following work was done under this appropriation during the year:—

St. Apollinaire.—The work in connection with water supply and tank at this place has been completed. A piece of land for a reservoir on the brook was taken; but the amount offered the proprietor has been refused. Three mill-owners further down the brook claim that the taking of water from the brook by the railway produces a scarcity of water for the operation of their mills, and they are claiming damages.

Cedar Hall.—A survey was made, plans and specification prepared and tenders asked, and a contract let for an extension to the existing pipe line and for the construction of a reservoir and a 50,000 gallon water tank.

North Sydney.—The existing pipe line was extended 240 lineal feet and one fire hydrant erected for fire protection.

Contract was let for 50,000 gallon water tanks at Rogersville, Beaver Brook and Windsor Junction, and the work of construction is under way.

Little Metis.—The existing pipe line was extended and a pump house, pump and boiler provided.

Sussex.—The existing pipe line was extended and pump house, pump and boiler supplied.

St. Charles Junction.—The work in connection with the water supply at this place was completed.

Reservoirs were fenced at Springhill Junction, Piedmont and Bathurst.

Sydney.—The existing pipe line was extended 240 feet and three fire hydrants erected for fire protection.

Increased accommodation and facilities along the line.

Mackenzie.—A combined passenger station and dwelling was provided.

Boiesdale.—A passenger station was provided.

St. John.—A wooden car repair shop was provided. A fire alarm system was installed throughout the yard. Some grading was done and 5,579½ feet of track laid in the yard and ballasted.

Dorchester.—Toilet accommodations were installed in the station and agent's dwelling apartments.

Petit Rocher.—An electric semaphore was erected west of the station on the spur line to the wharf, but was only in operation a short time when it was taken down and is now stored at Moncton.

New Glasgow.—The freight office was enlarged and a hot water heating system installed.

Merigomish.—An addition to the freight shed was built.

Montmagny.—A building for baggage, coal and oil was provided.

Dalhousie.—A one-stall brick engine house was built by day labour.

Hampton.—A baggage room was provided.

Carrolls.—A shelter was provided.

Marysville.—The existing freight shed was extended.

St. Paschal.—The existing freight shed was extended and room provided for baggage, coal and oil.

Little Metis.—Plans and specification were prepared for a wooden station, tenders asked and contract let, which was cancelled before any work was done.

Lac au Salmon.—The freight shed was extended.

Hurley Brook.—A shelter and platform was provided.

McLeod's.—A shelter and platform was provided.

Amqui.—A sewer was put in for drainage from station to take the place of two cess pits.

St. Pierre.—A loading platform was built.

L'Islet.—A building for baggage, coal and oil was provided.

St. Alexis.—The freight shed was extended.

SESSIONAL PAPER No. 20

Ivory's.—A shelter and platform was provided.

Weaver's.—A shelter and platform was provided.

Upper Blackville.—A building for baggage, coal and oil was provided.

St. Philippe de Neri.—A loading platform was built.

Aston Junction.—A building for baggage, coal and oil was provided

Astle's Crossing.—A shelter was provided.

Manzer's.—A shelter was provided.

Nashwaak.—A shelter and platform was provided.

Blissfield.—A shelter was provided.

Cushman's.—A shelter and platform was provided.

Clearwater.—A shelter was provided.

Forks.—A shelter and platform was provided.

St. Valier.—A loading platform was provided.

Renous.—A combined station and freight shed with freight and passenger platform was provided.

Crossing signal gongs were installed at the following places:—

Bedford.—One at crossing east of station.

Brookfield.—One at Dunmore road.

Sussex.—One at crossing east and one at crossing west of station.

Sydney.—One at King's road.

Sydney Mines.—One at Bras d'Or road.

Antigonish.—One at Sylvain road.

Halifax.—One on main line at Richmond and one on Cotton Factory branch.

Fencing.—During the year standard wire fencing was erected as follows:—

| | Rods. |
|--------------------------------------|---------|
| Drummond county division.. | 1,365 |
| North No. 2 division.. | 26 |
| North No. 1 division | 119 |
| Canada Eastern division.. | 21,226½ |
| Central division | 192 |
| Eastern extension division.. | 57 |

An extension was made to the east cottage at Moncton.

St. Anaclet.—A building for baggage, coal and oil was provided.

St. Alexander.—A building for baggage, coal and oil was provided.

Bore holes for water.—Were bored at the following places: Leitches Creek, Scotsburn, West Bay road, Elmsdale, Shubenacadie, Boundary Creek, Salisbury, Daveluyville, Carmel, Cacouna, Tobin and East Mines.

Sidings—

Petit Rocher—New siding, 776 feet.

Upper Dorchester—Siding extended, 434 feet.

Dalhousie Wharf.—New siding, 504 feet.

Enfield.—New siding, 642 feet.

Bathurst.—New siding, 555½ feet.

Boiestown.—Siding extended, 1,504 feet.

Boiestown.—Spur siding, 567 feet.

Carrolls.—Siding extended, 687 feet.

Amqui.—Siding extended, 336 feet.

Tatamagouche.—Siding extended, 150 feet.

Windsor Junction.—Siding extended, 820 feet.

Lac au Saumon.—New siding, 428 feet.

Gibson.—New siding, 3,700 feet.

Renous River Bridge.—New siding, 260 feet.

1 GEORGE V., A. 1911

Improvements at Ste. Flavie—

The yard was improved by laying 3,840 additional feet of track.

Improvements at Ste. Rosalie—

A bore hole for water is being sunk. Improvements were made to the yard and 1,094 feet of track laid.

Engine house, &c., Chaudiere Junction—

Plans and specification were prepared for an addition of 6 stalls to the engine house.

The freight car repair shop for which the contract was let in 1908-09 was completed.

Improvements were made to the water service and coaling pockets.

1,116 feet of track was laid in the yard.

Engine House, machine shop, &c., Riviere du Loup—

The contract for the machine shop, boiler house and brick chimney was completed. 3—290 H.P. boilers were supplied and erected in place on concrete foundations in the boiler room.

2—60-ton 4-motor and controller electric cranes 66 foot span with 10-ton auxiliary hoist and one 10-ton 3-motor electric travelling crane, 37-foot span, 16-foot lift, alternating current, were delivered and erected in place in the machine shop.

A brick stores and office building was constructed.

Plans and specification were prepared, tenders asked and contract let for an addition of 6 stalls to the existing engine house and for an addition to the freight shed and the work of construction gone on with. A fan heating system was installed in the machine shop, erecting shop, boiler and wheel shop and blacksmith shop. The old engine house was torn down and the material used in constructing engine house at Loggieville and Dalhousie. A large amount of grading was done in the year and 10,393 lineal feet of new tracks laid. Improvements were made to the water service.

For details of power plant, electrical equipment and machinery, see report of G. R. Joughins, superintendent of motive power and rolling stock.

Improvements at Drummondville—

Nothing was done under this appropriation.

Improvements at Newcastle—

The engine house was wired for electric lighting.

Improvements at Campbellton—

The extension to the pipe line for water service for which the contract was let in 1908-09 was completed.

Improvements at Point Tupper—

A rest house for the accommodation of trainmen was provided.

The water supply was improved by raising dam at reservoir. A brick house with concrete foundation was erected for the hoisting engine in connection with the transfer bridge of the Strait of Canso ferry service.

To provide an overhead crossing at Probert's. About 2 miles north of Londonderry Station—

Nothing was done under this appropriation.

To provide a subway crossing at Eastville. About one mile south of Londonderry Station—

Nothing was done under this appropriation.

SESSIONAL PAPER No. 20

Rolling stock—

For details of this appropriation, see report of G. R. Joughins, superintendent of motive power and rolling stock.

New machinery for locomotive and car shops—

For details of this appropriation, see report of G. R. Joughins, superintendent of motive power and rolling stock.

To put railway between Indiantown and Blackville into condition for operation—

This work was completed.

Extension to Dalhousie wharf—

The work in connection with the extension to this wharf was completed in the fiscal year 1908-09. The appropriation of 1909-10 for \$27,500 was to cover an amount held in suspense account for this work.

Diversion of road to eliminate crossing at rail level, between St. Cyrille and Drummondville—

This work was done in the fiscal year 1908-09 by the corporation of the town of Drummondville and the appropriation of \$1,300 for 1909-10 was to cover the cost which was held in suspense account.

I have the honour to be, sir,

Your obedient servant,

(Signed) WM. B. MACKENZIE,

Chief Engineer.

D. POTTINGER, Esq., I.S.O.,

Assistant Chairman, Government Railways Managing Board,
Moncton, N.B.

INTERCOLONIAL RAILWAY.

OFFICE OF THE ENGINEER OF MAINTENANCE.

MONCTON, N.B., June 1, 1910.

To the Canadian Government Railways Managing Board,
Moncton, N.B.

GENTLEMEN,—I beg leave to submit the following annual report for the Maintenance of Way Department for the year 1909 and 1910.

TRACK.

During the year 38.40 miles of 56, 58, 67, 80 and 110 lb. rails were taken up and replaced with 67 and 80 lb. rails.

TIES.

During the year 600, 163 ordinary ties and 288 sets of switch ties were put in the track.

BALLASTING.

During the year 56.38 miles of track was ballasted, using 67,659 cubic yards of ashes and gravel.

SWITCHES AND SEMAPHORES.

New semaphore signals were erected at the following stations:—

| | |
|----------------------------|---|
| St. Wenceslas.. | 1 |
| Carmel.. | 1 |
| Riviero du Loup | 1 |
| Trois Pistoles.. | 1 |
| Salisbury | 1 |

176 new switches were installed during the year.

New telegraph signals were installed during the year at the following stations:—

| | |
|------------------------|---|
| Villeroy.. | 1 |
| Daveluyville.. | 1 |
| Carmel | 1 |
| Tobin.. | 1 |
| St. Simon.. | 1 |

Necessary repairs were made to all semaphores, switches and telegraph signals throughout the line.

SIDINGS.

During the year 3.85 miles of additional siding accommodation has been provided at different points on the line for maintenance account.

FENCE BUILT BY OUR OWN MEN.

2.86 miles of woven wire fence was built at different points on the line by our own men.

Built by contract, 44.56 miles of woven wire fencing.
Necessary repairs were made to fences throughout the line.

SNOW FENCES.

There was built during the year 66.25 rods of stationary snow fence, eight feet high; 363 rods of portable snow fence.

Necessary repairs were made to snow sheds and snow fences, where required.

WHARFS AND TRESTLES.

Repairs.

| | |
|-------------------------------|------------------------------------|
| St. John, long wharf. | Gibson, wharf. |
| St. John, ballast wharf, | Loggieville, wharf. |
| Halifax, pier No. 2. | Moncton, public wharf. |
| Halifax, pier No. 3. | Mulgrave, wharf. |
| Halifax, pier No. 4. | Newcastle, coal trestle. |
| Halifax, pier No. 5 | North Sydney, wharf. |
| Halifax, Cunard wharf. | Prince's Pier, wharf. |
| Halifax, coal trestle, D.W.T. | Point du Chêne, wharf. |
| Richmond, pier No. 6. | Pictou, wharf. |
| Richmond, pier No. 7. | Point Tupper, wharf. |
| Richmond, pier No. 8. | Springhill Junction, coal trestle. |
| Richmond, coal trestle. | Stellarton, coal trestle. |

SESSIONAL PAPER No. 20

BRIDGES AND CULVERTS.

Repairs.

| | |
|---|---|
| Aston Jct., west of, culvert. | McCafferty's, overhead bridge. |
| Antigonish, $\frac{1}{2}$ mile west of, culvert. | McKinnon's Harbour, culvert. |
| Black River, bridge. | Nelson, 2 culverts. |
| Bic, 2 culverts. | Nashwaak, 3 culverts. |
| Boiestown, 2 culverts. | Norton, culvert. |
| Blackville, 2 culverts. | North River, bridge. |
| Blackville, bridge. | Otty's, overhead bridge. |
| Bedford, bridge. | Oxford Junction, culverts. |
| Bayfield, culvert. | Oulton's, culvert. |
| Carmel, east of, culverts. | Orangedale, east of, culvert. |
| Cap St. Ignace, west of, 3 culverts. | Penniac, bridge. |
| Chaudière Jct. & St. Romuald, bet., culvert. | Penniac, east of, 9 culverts. |
| Causapscal, culvert. | Pugwash, draw bridge. |
| Causapscal, bridge. | Pugwash Junction, east of, 2 culverts |
| Campbellton, west of, 2 culverts. | Piedmont, west of, culvert. |
| Campbellton, east of, 2 culverts. | Quispamsis, culvert. |
| Clearwater, bridge. | Quispamsis, overhead bridge. |
| Chatham, culvert. | River Henry, bridge. |
| Cross Creek, bridge. | Rimouski, culvert. |
| College Bridge, culvert. | Renous, bridge. |
| Caldwell's Brook, culvert. | Rogersville, overhead bridge. |
| Calhoun's, aboideau. | Rogersville, culvert. |
| Delotbinière, bridge. | Rocky Lake, bridge. |
| Daveluyville, culverts. | St. Cyrille, east of, culvert. |
| Doaktown, 4 culverts. | St. Perpetue, culvert. |
| Doaktown, bridge. | St. Nicholas, culvert. |
| Durham, bridge. | St. Appollinaire, east of, culvert. |
| Doyle Brook, bridge. | St. Philippe de Néri, culvert. |
| Dorchester, overhead bridge. | St. Phillippe de Néri, one mile west of, culvert. |
| Debert, tunnel culvert. | St. Charles Junction, west of, culvert. |
| Dartmouth, culvert. | St. Elloi, bridge. |
| Flatlands, culvert. | St. Luce, culvert. |
| Folleigh, culvert. | St. Anaclet, culvert. |
| Gibson, east of, culvert. | St. Simon, 2 culverts. |
| Hadlow, Bennett's bridge. | St Moïse, culvert. |
| James River, culvert. | St. John, overhead bridge, Dorchester Street. |
| Kent Junction, Vaughan's siding, bridge. | Stewart's, bridge. |
| Lemieux, bridge. | Sackville, bridge. |
| L'Islet, $\frac{1}{2}$ mile east of, culvert. | South River, east of, bridge. |
| L'Islet, culvert. | Sutherland's River, bridge. |
| Lanse A Giles, $\frac{1}{2}$ mile east of, culvert. | Sylvester, bridge. |
| Ludlow, 2 culverts. | Trois Saumon's, $\frac{1}{2}$ mile west of, bridge. |
| Lakeside, overhead bridge. | Taymouth, bridge. |
| Londonderry, west of, overhead bridge. | Truro, west of, culverts. |
| Mitchell, east of, culverts. | Truro, bridge, Queen St. |
| Montmagny, bridge. | Tracadie, 2 culverts. |
| Montmagny, east of, 2 culverts. | Tatamagouche, culvert. |
| Millstream, culvert. | Upper Cross Creek, bridge. |
| Manzer's, bridge. | Whetstone Brook, culvert. |
| Marysville, bridge. | West River, bridge. |
| Moncton, Jonathan Creek, aboideau. | Waverly, culvert. |

PAINTING.

Bridges.

| | |
|--|--------------------------------------|
| Adamsville, east of bridge. | George's River, east of, bridge. |
| Aulac, bridge. | Kent Junction, bridge. |
| Belledune, bridge. | Le Plancher River, bridge. |
| Bathurst, bridge. | Linwood, west of, bridge. |
| Beaver Brook, bridge. | Leitches' Creek, west of, 2 bridges. |
| Barnaby River, bridges Nos. 1, 2 and 3 | Moffatt's, bridge. |

1 GEORGE V., A. 1911

Barnaby River, east of, bridge.
 Blackville, bridge.
 Beaver Cove, east of, bridge.
 Boisdale, east of, bridge.
 Canaan, east of, 3 bridges.
 Coal Branch, east of, 2 bridges.
 Cushman's, bridge.
 Calhoun's, east of, bridge.
 Canso, ferry landing.
 Clark's Brook, bridge.
 Derby Junction, east of, bridge.
 Dorchester, bridge.
 East Adams, bridge.
 Folleigh, east of, bridge.
 Gloucester Junction, bridge.
 Greenville, east of, bridge.
 Grand Narrows, east of, bridge.

Miramichi north west, bridge.
 Miramichi, south west bridge.
 Missiquash River, bridge.
 Meadowbrook, 2 bridges.
 New Mills, bridge.
 Nashes Creek, bridge.
 Nigadoo, bridge.
 Newcastle, east of, bridge.
 Nelson, bridge.
 Nappan, bridge.
 Nepisiquit, bridge.
 North Sydney Jct., east of, bridge.
 Painsee Jct., bridge.
 Sackville, bridge.
 Shubenacadie, east of, bridge.
 Tatagouche, bridge.

PAINTING.

Buildings.

Anagance, station.
 Amherst, tank.
 Bathurst, station.
 Belledune, tank.
 Chaudière, station.
 Canaan, tank.
 Eureka, station.
 Ferrona Jct., station.
 Gloucester Jct., station.
 Harcourt, freight house.
 Londonderry, station.

Lakeside, station.
 Mitchell, agent's dwelling.
 Moncton, D. Pottinger's house.
 Newcastle, round house.
 New Glasgow, station roof.
 Petit Rocher, station.
 Red Pine, station.
 Springhill Jct., tank.
 Stellarton, tank.
 Torryburn, station.
 Trenton, station.

BUILDINGS AND PLATFORMS.

Repairs.

Necessary repairs were made to stations, dwellings and outbuildings at the following places:—

Aston Junction.
 Assametquaghan.
 Adamsville.
 Amos.
 Astles.
 Apohaqui.
 Anagance.
 Amherst.
 Aulac.
 Athol.
 Avondale.
 Antigonish.
 Amqui.
 Bagot.
 Bic.
 Beau Rivage.
 Bersford.
 Bathurst.
 Bartibogue.
 Belledune.
 Beaver Brook.
 Berry's Mills.
 Blackville.
 Boiestown.
 Brookville.
 Bloomfield.

Model Farm.
 Maccan.
 Memramcook.
 Meadow Brook.
 Milford.
 Marshy Hope.
 Monastery.
 Mulgrave.
 Merigomish.
 Meadowville.
 Malagash.
 McLeod's.
 McNamee's.
 McKinnon's Harbour.
 McCallum's.
 New Mills.
 Nash's Creek.
 Newcastle.
 Naskwaak.
 Nelson.
 Norton.
 Nauwigewauk.
 Nappan.
 New Glasgow.
 North Sydney.
 Old Lake Road.

SESSIONAL PAPER No. 20

Belmont.
 Bedford.
 Brookfield.
 Barrachois.
 Brown's Point.
 Chaudière.
 Carmel.
 Cap St. Ignace.
 Chaudière Curve.
 Chaudière Junction.
 Cacouna.
 Campbellton.
 Causapscal.
 Cedar Hall.
 Culligan's.
 Charlo.
 Chatham Junction.
 Conn's Mills.
 Catamount.
 Coal Branch.
 Canaan.
 Cross Creek.
 Chatham.
 Carroll's.
 Cold Brook.
 College Bridge.
 Calhoun's.
 Drummondville.
 Delotbinière.
 Dessaint.
 Dalhousie.
 Dalhousie Junction.
 Dickie's.
 Derby Junction.
 Durham.
 Doaktown.
 Dorchester.
 Derbert.
 Dewis.
 Denmark.
 Dartmouth.
 Eel River.
 East Mines.
 Evans.
 Elmsdale.
 Eureka.
 Enfield.
 Flatlands.
 Folleigh.
 Ferrona Junction.
 Gloucester Junction.
 Gallagher Ridge.
 Gibson.
 Greenville.
 Glengarry.
 Grand Lake.
 Graham Siding.
 George's River.
 Grand Narrows.
 Harlaka Junction.
 Hadlow.
 Hadgin's.
 Harcourt.
 Humphrey's.
 Hampton.
 Hopewell.
 Hilden.
 Isle Verte.
 Indiantown.

Oxford Junction.
 Oakfield.
 Orangedale.
 Oxford.
 Point Levis.
 Petit Rocher.
 Petitcodiac.
 Point du Chêne.
 Penobsquis.
 Painsec Junction.
 Pictou Landing.
 Piedmont.
 Point Tupper.
 Pictou.
 Pugwash.
 Pugwash Junction.
 Passekeag.
 Quebec.
 Quispamsis.
 River Ouelle.
 Rivière-du-Loup.
 Rimouski.
 Red Pine.
 Rogersville.
 Renforth.
 Rothesay.
 River Philip.
 Riversdale.
 River John.
 St. Leonard.
 St. Cryille.
 St. Wenceslas.
 St. Germain.
 St. Appollinaire.
 St. Rosalie.
 St. Eugene.
 St. Nicholas.
 Ste. Louise.
 St. Michel.
 St. Jean Chrysostome.
 St. Francois.
 St. Valier.
 St. Charles Junction.
 St. Jean Port Joli.
 St. Romauld.
 St. Joseph.
 St. Pacome.
 Ste. Luce.
 Ste. Favier.

 St. Simon.
 Sacré-Cœur.
 St. Aanclet.
 St. Paschal.
 St. Phillippe.
 St. Arsene.
 St. Fabien.
 St. Alexander.
 St. Helene.
 Sayabec.
 St. Octave.
 St. Alexis.
 St. Moise.
 Sussex.
 Shediac.
 Springhill Junction.
 Sackville.
 Salt Springs.
 Stewiacke.

1 GEORGE V., A. 1911

Iona.
 Jacquet River.
 Jubilee.
 James River.
 Kent Junction.
 Lavergne.
 Lemieux.
 Laurier.
 Levis.
 Little Métis.
 Lac au Saumon.
 Lakeside.
 Londonderry.
 Lansdowne.
 Leitches' Creek.
 Lyons' Brook.
 Mitchell.
 Montmagny.
 Millstream.
 Matapedia.
 Moffatt's.
 Millerton.
 Marysville.
 Manzers'

Shubenacadie.
 Stellartoin.
 South River.
 Sydney Mines.
 Sydney.
 Shenacadie.
 Scotsburn.
 Sylvester.
 Trois Pistoles.
 Thomson.
 Truro.
 Trenton.
 Tracadie.
 Tatamagouche.
 Upper Dorchester.
 Union.
 Villeroy.
 Westchester.
 Wentworth.
 West River.
 Westville.
 Wallace.
 Waverley.

Iron bars were placed on freight shed doors and windows where required.

The following repairs were made to buildings, &c., at St. John:—

Sheds, Nos. 2, 3, 5, 7, 8, 9 and 10.
 Elevator.
 Freight shed.
 Coachman's house.
 Gateman's House.
 Yard Office.

Station
 Train shed.
 Train shed platform.
 I. C. R. dwelling houses.
 Round House.

The following repairs were made to buildings, &c., at Halifax and Richmond:—

Sheds, Nos. 1, 2, 3, 4 and 8.
 Richmond station.
 North street station.
 Houses on Cunard property.
 Shops at Richmond.
 Cattle shed.
 North street train shed.
 D. A. R. shed.
 Postal building.
 Kemp road buildings.
 Mechanical repair shop, North street.

Brick freight shed.
 City ticket office, Hollis street.
 Coal shed, Richmond.
 Immigration building.
 Watch tower, D. W. T.
 Blacksmith shop, D. W. T.
 Switch house.
 Loading platform, D. W. T.
 Car cleaner's building.
 I. C. R. dwelling house, 218 Campbell road.

The following repairs were made to buildings, &c., at Moncton:—

Transfer shed.
 Station platform.
 Erecting shop.
 Cattle shed.
 Loading platform.
 Track blacksmith shop.
 New shops.
 Freight house platform.
 Electrician's office.
 Government cottage occupied by Mr. Pottinger.
 Government cottage occupied by Mr. Tiffin.

Station.
 Car shop platform.
 Turning shop.
 Car mileage office.
 Engine house.
 Freight shed.
 Cottages on Bridge and Main streets.
 Yard office.
 Coaling plant.
 Ice House.

The following round houses and shops were repaired:—

Chaudière Junction.
 Campbellton.
 Drummondville.

Point Tupper.
 Pictou.
 Rivière-du-Loup.

SESSIONAL PAPER No. 20

Dalhousie.
 Dartmouth.
 Nicolet.
 Newcastle.
 North Sydney.
 Oxford Junction.
 Point du Chêne.
 Pirate Harbour.

St. Rosalie.
 Ste. Flavie.
 Sussex.
 Springhill Junction.
 Stellarton.
 Sydney.
 Truro.
 Richmond.

Station and loading platforms were repaired at the following places:—

Aston Junction.
 Assametquaghan.
 Adamsville.
 Armstrong's.
 Apohaqui.
 Amherst.
 Atkinson's siding.
 Athol.
 Alton.
 Antigonish.
 Bagot.
 Bathurst.
 Bartibogue.
 Bloomfield.
 Bishop's Siding.
 Belmont.
 Barney's River.
 Boisdale.
 Campbellton.
 Causapscal.
 Cedar Hall.
 Culligan's.
 Chârlot.
 Chatham Junction.
 Coal Branch.
 Carroll's.
 College Bridge.
 Drummondville.
 Dalhousie Junction.
 Durham.
 Dorchester.
 Debert.
 Dickie's.
 Denmark.
 Eel River.
 East Mines.
 Eureka.
 Elmsdale.
 Enfield.
 Eden.
 Fredericton.
 Folley.
 Fairview.
 Fall River.
 Gloucester Junction.
 Green Point.
 Gibson.
 Grand Narrows.
 Hampton.
 Hopewell.
 Isle Verte.
 Jaquet River.
 Jubilee.
 Kent Junction.
 Kinsac.
 Laurier.
 Lemieux.
 Levis.

Memramcook.
 Mulgrave.
 Mines Road.
 McLeod's.
 McNamee's.
 New Mills.
 Nash's Creek.
 Newcastle.
 Nashwaak.
 Norton.
 Nauwigewauk.
 Onslow.
 Oxford Junction.
 Orangedale.
 Ottawa Brook.
 Point Levis.
 Petit Rocher.
 Penobsquis.
 Painsec Junction.
 Point Tupper.
 Pugwash.
 Pomquet.
 Quispamsis.
 Rivière-du-Loup.
 Rimouski.
 Renforth.
 River Philip.
 River John.
 St. Germain.
 St. Cyrille.
 St. Wenceslas.
 St. Eugene.
 Ste. Rosalie.
 St. Jean Chrysostome.
 St. Francois.
 St. Charles Junction.
 St. Jean Port Joli.
 Ste. Louise.
 St. Luce.
 Ste. Flavie.
 St. Simon.
 Sacre Cœur.
 St. Anaclet.
 St. Paschal.
 Sayabec.
 St. Octave.
 St. Alexis.
 Sussex.
 Shediac.
 Springhill Junction.
 Sackville.
 Stewiacke.
 Stellarton.
 Sydney River.
 Shenacadie.
 Scotsburn.
 Trois Pistoles.
 Turgeon's.

1 GEORGE V., A. 1911

Little Metis.
 Londonderry.
 Lakeview.
 Leitches' Creek.
 Lyon's Brook.
 Mitchell.
 Montmagny.
 Millstream.
 Matapedia.
 Moffatt's.
 Millerton.
 Model Farm.

Thomson.
 Truro.
 Trenton.
 Tatamagouche.
 Upper Dorchester.
 Westchester.
 Wellington.
 West River.
 West Bay Road.
 Westville.

New buildings were erected along the line as follows:—

| | |
|--|--|
| Cross Creek, combined station and dwelling. | St. Cyrille, freight and baggage building. |
| Carmel, combined station, dwelling and freight shed. | McGivney's, dwelling. |
| Daveluyville, combined station, dwelling and freight shed. | Moncton, car service building rebuilt. |

GENERAL.

New buffers were made and set up at different points on the line.

Repairs were made to crossings on the line at various places, where required.

Gates and cattle-guards have been repaired throughout the line.

Glass was put in and glazing done where necessary.

Ladders for buildings and semaphores were provided where necessary throughout the line.

Necessary repairs were made to turntables where required.

Semaphores, switches and telegraph signals have been painted throughout the line.

Necessary repairs have been made to hand cars, trollies, baggage trucks and wheel-barrows throughout the line.

Sign boards were made and put up where required.

Boxes were made for packing second hand bolts and spikes, when necessary.

Necessary repairs were made to steam shovels, steam cranes, pile drivers, &c.

The track of the Intercolonial railway, with bridges and structures, have been kept in good repair, and I can safely say that I do not think it was ever in better condition than now.

I am,

Yours faithfully,

T. C. BURPEE,

Engineer of Maintenance.

MONCTON, N.B., March 31, 1910.

INTERCOLONIAL RAILWAY OF CANADA.

OFFICE OF SUPERINTENDENT MOTIVE POWER AND ROLLING STOCK,

MONCTON, N.B., July 6, 1910.

SIR,—I have the honour to submit herewith the annual report of the operations of the motive power and rolling stock department for the year ending March 31, 1910.

I might add that the general condition of the rolling stock is good, with the exception of the cars and locomotives condemned as shown in the attached report. During the year we abandoned the old shops at Moncton and moved into the new ones which, of course, necessarily entailed a large amount of work and interfered

SESSIONAL PAPER No. 20

with the regular repairs to locomotives and cars, but with the improved facilities at the new plant we have been able to overcome the decrease in the output during the transition period, and this with a considerable reduction in the staff. The locomotive repair shops at Halifax were also abandoned during the year, and the services of about 100 employees were dispensed with at this place and the repair work transferred to Moncton.

I am, sir,

Your obedient servant,

(Signed) G. R. JOUGHINS,

Superintendent of Motive Power.

D. POTTINGER, Esq., I.S.O.,

Assistant Chairman, Government Railways Managing Board,
Moncton, N.B.

INTERCOLONIAL RAILWAY OF CANADA.

OFFICE OF THE MECHANICAL ACCOUNTANT,

MONCTON, N.B., July 5, 1910.

SIR,—I beg to submit herewith the annual report of the operations of the mechanical department for the year ended March 31, 1910, as follows:—

A.—Statement showing the number of locomotives and the different classes of the other rolling stock on the line.

B.—Statement showing the mileage made, and the coal, oil, grease and waste consumed by locomotives.

Also a summary of the principal work done in the locomotive and car shops at Moncton, Richmond and River du Loup.

During the year the following rolling stock was purchased on renewals account (revenue):—

30 Hart-Otis steel side dump cars (coal), 100,000 lbs. capacity.

6 Box baggage cars.

1 Yard crane.

2 Coal cranes.

The thirty Hart-Otis dump cars, which have a total capacity of 1,500 tons, replaced 153 small hoppers and 29 twenty-ton coal cars, which were condemned, and which together equalled the same capacity as the dump cars.

The following rolling stock was rebuilt in the shops at Moncton on revenue account to replace the same number condemned:—

1 Box car.

16 Platform cars.

1 Diamond flanger.

The Diamond flanger was rebuilt from a platform car.

2 Platform cars were changed to pulpwood cars.

741 Box cars were fitted with side ladders.

53 freight cars, 13 snow ploughs and 5 flangers were fitted with air brakes, and 153 freight cars were fitted with straight air.

I have the honour to be, sir,

Your obedient servant,

(Signed) J. J. WALKER,

Mechanical Accountant.

G. R. JOUGHINS, Esq.,

Superintendent of Motive Power, I.C.R.,
Moncton, N.B.

INTERCOLONIAL RAILWAY.

STATEMENT showing the number of Locomotives and the different classes of Rolling Stock on the line on March 31, 1909, and March 31, 1910.

| | Locomotives. | 1st Class Sleeping Cars. | 2nd Class Sleeping Cars. | Parlour Cars. | Dining Cars. | 1st Class Passenger Cars. | 2nd Class Passenger Cars. | Postal Cars. | Baggage Cars. | Box Baggage Cars. | Air Brake Instruction Car. | Steam Motor Cars. | Box Cars. | Refrigerator Cars. | Platform Cars. | Pulpwood Cars. | Oil Tank Cars. | Hopper Cars. | Gondola Cars (coal). | Coal Cars (20-ton). | Steel Side Dump Cars (coal). | Stock Cars. | (Convertible Dump Cars. | Auxiliary Cars. | Vans. | Total Cars. | Common Snow Ploughs. | Wing Ploughs. | Rotary Steam Ploughs. | Double Track Ploughs. | Double End Ploughs. | Flangers. | Total Ploughs and Flangers. | Steam Cranes. | Ballast Plough Cars. | Well Boring Car. | | |
|---|--------------|--------------------------|--------------------------|---------------|--------------|---------------------------|---------------------------|--------------|---------------|-------------------|----------------------------|-------------------|-----------|--------------------|----------------|----------------|----------------|--------------|----------------------|---------------------|------------------------------|-------------|-------------------------|-----------------|-------|-------------|----------------------|---------------|-----------------------|-----------------------|---------------------|-----------|-----------------------------|---------------|----------------------|------------------|--|---|
| On hand serviceable and repairing on Mar. 31, 1909. | 409 | 41 | 48 | 9 | 9 | 132 | 93 | 33 | 65 | .. | 1 | 4 | 6,931 | 143 | 3,034 | 50 | 40 | 1,130 | 10 | 446 | 100 | 145 | 200 | 23 | 116 | 12,803 | 52 | 20 | 2 | 2 | 1 | 25 | 102 | 12 | 2 | .. | | |
| To be replaced on Mar. 31, 1909. | 5 | .. | 2 | .. | .. | 6 | 6 | 1 | .. | .. | .. | .. | 165 | 1 | 41 | .. | .. | 69 | 7 | 25 | .. | 3 | .. | .. | 3 | 329 | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | .. | | |
| Total equipment on Mar. 31, '09 | 414 | 41 | 50 | 9 | 9 | 138 | 99 | 34 | 65 | .. | 1 | 4 | 7,096 | 144 | 3,075 | 50 | 40 | 1,199 | 17 | 471 | 100 | 148 | 200 | 23 | 119 | 13,132 | 53 | 20 | 2 | 2 | 1 | 25 | 103 | 12 | 2 | .. | | |
| Purchased during the year on capital account, nil. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purchased during the year on renewals account | | | | | | | | | | 6 | | | | | | | | | | | 30 | | | | | 36 | | | | | | | | 3 | | | | |
| Changed in the shops from platform to pulpwood | | | | | | | | | | | | | | | | 2 | 2 | | | | | | | | | | | | | | | | | | | | | |
| Changed in the shops from platform to flanger | | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| Transferred from first class to dining | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transferred from platform to flanger | | | | | | | | | | | | | | | | 14 | | | | | | | | | | | | | | | | | | | | | | |
| Transferred from box to well boring | | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 |
| Deduct 153 6 ton hoppers and 29 20-ton coal cars = 1,600 tons. Capacity replaced by 30 50-ton steel side dump cars of the same capacity on renewals account, as above. | | | | | | | | | | | | | | | | | | | 153 | 29 | | | | | | 182 | | | | | | | | | | | | |
| Total equipment on Mar. 31, '10 | 414 | 41 | 50 | 9 | 12 | 135 | 99 | 34 | 65 | 6 | 1 | 4 | 7,095 | 144 | 3,058 | 52 | 40 | 1,046 | 17 | 442 | 130 | 148 | 200 | 23 | 119 | 12,970 | 53 | 20 | 2 | 2 | 1 | 40 | 118 | 15 | 2 | 1 | | |

INTERCOLONIAL RAILWAY.

STATEMENT of Mileage and Coal, Oil, Grease and Wool Waste consumed by Locomotives for year ended March 31, 1910.

| MONTHS. | Locomotive Mileage. | CONSUMPTION. | | | | AVERAGE CONSUMPTION PER 100 MILES. | | | | | |
|----------------|------------------------|------------------|------------------------|-------------------------|----------------------|---------------------------------------|-----------------|------------------------|-------------------------|----------------------|-------------------------|
| | | Tons of Coal. | Pints of Valve Oil. | Pints of Engine Oil. | Pounds of Grease. | Pounds of Wool Waste | Pounds Coal. | Pints of Valve Oil. | Pints of Engine Oil. | Pounds of Grease. | Pounds of Wool Waste |
| 1909. | | | | | | | | | | | |
| April..... | 729,866 | 42,233 | 10,042 | 20,953 | 2,183 | 549 | 12,962 | 1.38 | 2.87 | .30 | .08 |
| May..... | 665,177 | 35,362 | 8,967 | 19,022 | 2,057 | 973 | 11,910 | 1.35 | 2.86 | .31 | .15 |
| June..... | 666,444 | 32,917 | 8,960 | 19,535 | 2,406 | 697 | 11,064 | 1.34 | 2.93 | .36 | .10 |
| July..... | 738,978 | 36,180 | 9,570 | 20,664 | 2,193 | 757 | 10,967 | 1.30 | 2.80 | .30 | .10 |
| August..... | 688,738 | 32,781 | 9,144 | 19,340 | 2,609 | 580 | 10,661 | 1.33 | 2.81 | .38 | .09 |
| September..... | 698,948 | 35,611 | 9,294 | 19,386 | 1,961 | 533 | 11,413 | 1.33 | 2.77 | .28 | .08 |
| October..... | 726,528 | 39,213 | 9,573 | 20,060 | 2,281 | 1,020 | 12,090 | 1.32 | 2.76 | .31 | .14 |
| November..... | 736,994 | 42,829 | 10,047 | 20,075 | 2,160 | 470 | 13,017 | 1.36 | 2.72 | .29 | .06 |
| December..... | 765,676 | 46,849 | 10,512 | 21,401 | 1,984 | 617 | 13,706 | 1.37 | 2.80 | .26 | .08 |
| 1910. | | | | | | | | | | | |
| January..... | 727,778 | 44,817 | 10,088 | 19,642 | 2,013 | 453 | 13,794 | 1.39 | 2.70 | .28 | .06 |
| February..... | 686,791 | 43,445 | 9,593 | 19,539 | 2,342 | 779 | 14,170 | 1.40 | 2.84 | .34 | .11 |
| March..... | 776,568 | 46,276 | 10,343 | 22,011 | 2,508 | 836 | 13,348 | 1.33 | 2.83 | .32 | .11 |
| Totals.... | 8,608,486 | 478,513 | 116,133 | 241,628 | 26,697 | 8,264 | 12,451 | 1.35 | 2.81 | .31 | .10 |

J. J. WALKER,
Mechanical Accountant.

MONCTON, N.B.,
March 31, 1910.

The following is a report of the work done in the locomotive department at Moncton during the year:—

Erecting shop—

- 24 locomotives were partly rebuilt.
- 59 locomotives received general repairs.
- 10 locomotives received heavy repairs.
- 121 locomotives received light repairs.
- 2 locomotives were converted from compound to simple cylinder.

Boiler shop—

- 42 side sheets were made.
- 39 tube sheets were made.
- 15 door sheets were made.
- 61 fire boxes were patched.
- 2 fire boxes were made.
- 23,899 tubes were applied.
- 2,183 new tubes were made.
- 22,777 tubes were pieced.
- 86 boilers were tested.

SESSIONAL PAPER No. 20

- 1 water service boiler was repaired.
- 187 smoke stacks were made.
- 24 ash pans were made.
- 61 ash pans were repaired.
- 60 ash pan sides were made.
- 41 front ends were made and 13 were repaired.
- 55 Sterlingworth trucks were repaired.
- 25,090 stay bolts were applied.
- 98 tender trucks were repaired.
- 51 smoke stacks and bonnets were made.
- 24 tanks were made.
- 25 coal buckets were made.
- 10 driving wheels were rivetted.
- 500 chain links were made.
- 25 shovelling plates were made.
- 47 tender frames were repaired.
- 8 cabs were repaired.
- 1 engine cab was rebuilt.
- 4 tenders were rebuilt.
- 4 snow ploughs were ironed.
- 6 coal chutes were made.
- 4 truck bolsters were rebuilt.
- 60,405 new copper ferrules were made.

Blacksmith shop—

The following was the output of this shop:—

- 1,781,788 lbs. iron forgings, including 642,933 lbs. bolts.
- 630,036 lbs. steel forgings.

Brass foundry—

The following was the output of this shop:—

- 350,510 lbs. bearings.
- 64,610 lbs. brass casting.
- 13,568 lbs. babbitt.
- 32,012 lbs. antimonial lead.
- 622 lbs. metallic packing.

Pattern shop—

The following patterns were made and repaired:—

- 299 for cast iron.
- 109 for steel and malleable.
- 455 for brass castings.
- 45 repaired for cast iron.
- 63 repaired for steel and malleable.
- 129 repaired for brass castings.
- 37 altered for cast iron.
- 8 altered for steel castings.
- 7 altered for brass castings.

Machine shop—

- 163 driving tires were applied.
- 19 driving axles were applied.
- 7 trailing tires were turned off, and 2 applied.
- 1,868 car tires were turned off, 588 bored and 419 applied.
- 347 driving tires were turned off.
- 287 engine truck tires were turned off and 241 bored and applied.

1 GEORGE V., A. 1911

902 tender truck tires were turned off and 414 bored and applied.
 84 tender axles were applied.
 14 engine truck axles were applied.
 3 driving wheels were centred and machined.
 100 hose bag springs were made.
 4,000 engine bolts and studs were made.
 21,540 lbs. nuts were faced.
 7,079 turned bolts were threaded.
 17,000 stay bolts were threaded.
 672,694 other bolts were threaded.
 271,250 lbs. nuts were tapped.
 6,800 lbs. nuts were retapped.
 800 rings of pistons packing were made.
 17,195 engine studs were turned.
 15 crank pins were made.
 6,000 patch bolts were made.
 2 steam chests were made.
 2 false valve faces and 6 piston rods were made.
 7 pistons were made.
 3 cylinder heads were made.
 7 guide bars and blocks were made.
 11 cylinders and half saddles were made.
 16 smoke box doors and rings were made.
 2 locomotive bells were made.
 46 tender wheels and 8 engine truck wheels were applied to axles.

In addition to the above a large amount of work was done in repairing and making articles such as crossheads, smoke stacks and bases, yokes for trailer trucks, retorts, cheek plates, &c.

A large amount of work was done in connection with repairs to the motor car engines, and also to shop machinery.

Motion Shop—

166 knuckle joints were bored and applied.
 612 knuckle joint nuts and washers were made and machined.
 231 knuckle joint pins were made, and 24 pins and bushes applied.
 490 driving boxes were bored and fitted to journals.
 8 driving boxes were made and 450 were planed.
 10 pump cylinders and 4 air cylinders were bored.
 276 eccentric straps and pulleys were repaired.
 112 link pins and bushes were renewed.
 4 link boxes were made and applied.
 258 eccentric rods were repaired.
 42 slide valves were made and 34 faced.
 164 other valves were repaired.
 127 valve yokes were fitted and 26 were machined.
 25 piston rods were repaired and 59 fitted to crossheads.
 126 side rod bushes were bored.
 273 big end bolts were applied.
 178 small end brasses were applied.
 149 big end brasses were made and applied.
 108 driving box brasses were relined.
 62 old brasses were lined.
 235 new brasses were machined and applied.
 52 main rod brasses were made and 19 refitted.

SESSIONAL PAPER No. 20

132 main rod liners were applied and 152 bolts were made.
 411 cheek plates were made and applied.
 336 crank pins were repaired.
 26 crank pin washers and 263 nuts were made.
 46 crosshead pins were applied.
 214 side rods were repaired.
 526 side rod brasses were made and applied.
 109 reverse shaft bushes were repaired and 10 fitted to journals.
 8 throttle glands and 96 lever stems were repaired.
 125 crossheads were rebabbited and planed.
 60 crosshead nuts were made and 83 keys and pins applied.
 9 rocker arms were made and 144 rebushed and applied.
 69 rocker box bushes were made and applied.
 36 main rods and 38 links were repaired.
 129 eccentric straps were fitted to pulleys.
 4 link blocks were made and 48 repaired.
 36 reverse levers were repaired.
 26 valve stem packing rings were made.
 11 piston rings were bored and applied.
 10 big end liners were planed.
 98 main rod keys were made and applied.
 1 crosshead was made.
 82 main rod bolts were renewed.

Brass Turning Shop—

72 steam chest nipples were made.
 150 injectors were repaired and 36 injector check valves were made.
 20 air pumps were repaired.
 24 bell ringers were made.
 24 try cocks and 24 gauge glass cocks were made.
 200 cylinder cocks were made.
 72 small tender cocks and 18 blow-off cocks were made.
 48 large tender cocks were made.
 250 flag staff casings were made.
 300 engine truck brasses were made.
 150 brake cam screws and nuts were made.
 800 piston rod oil cups were made.
 24 steam chest release valves were made.
 100 oil cups were made.
 130 wheel defect gauges were made.
 300 beading tools and 100 reamers were made.
 550 steam gauges were repaired.
 170 jacks were repaired.
 300 taps were made.
 50 sets tubes and 40 sets dies were made.
 20 tube cutters were repaired.
 60 electric headlights were repaired.

In addition to the above a large number of lubricators and regulators, air pumps and governors, brake and air cylinders, and boiler mountings received extensive repairs.

Tender Shop—

55 locomotive pilots and 5 cabs were made.
 2,144 sledge hammer, 79 monkey wrench and 762 hammer and chisel handles were made.

1 GEORGE V., A. 1911

- 32 brakemen's seats and cushions were made.
- 3 tenders were enlarged.
- 300 pump stays were made.
- 8 tender truck frames were repaired, and 7 tender trucks repaired.
- 10 tenders received light and S5 heavy repairs.
- 36 cabs were repaired.
- 10 tender frames were repaired.
- 16 bolsters were made.
- 3 complete tenders were made.
- 4 wheelbarrows, 7 hand carts and 3 trolleys were made.
- 66 wheelbarrows, hand carts and hand trucks were repaired.
- 189 running boards were made.
- 66 buffer beams were made.
- 114 headlight stands were made.
- 12 spring boards were made and applied.
- 23 brake beams were made.
- 55 tool, 36 drivers' outfit and 20 tender outfit boxes were made.
- 66 switch lamp bottoms were made.
- 507 shipping boxes were made.
- 31 aprons were made and applied.
- 175 cab curtains were made.
- 112 cushion boxes were made and 74 repaired.

Tin and Copper shop—

- 12,556 W. A. B. hose couplings were fitted to new hose.
- 5,188 signal and steam couplings were fitted to new hose.
- 18,622 bushes were lined.
- 23 tank pipes were made and 56 repaired.
- 142 tail lamps were repaired.
- 409 switch and 87 signal lamps were repaired.
- 128 oil cans and 119 oilers were repaired.
- 11 oil tanks were repaired.
- 219 headlights were repaired.
- 1,087 feet galvanizer pipe were fitted and applied.
- 622 sets metallic packing were made.
- 8,016 steam and air brake hose and couplings were repaired.
- 300 sets valve stem packing were made.
- 1,206 tin oil cup covers were made.
- 127 water cans were made.
- 10 steam gauge and 14 water gauge lamps were repaired.
- 135 hand lamps were made.
- 40 lamp fonts were made.

Steam and Westinghouse air brake pipes were repaired on 82 locomotives.

A great deal of work was done in repairing and remodelling the plumbing work in the following buildings: Yard office, freight shed, rest room, Moncton shops, car cleaning building and outside station.

At Norton station the heating boiler was given extensive repairs and was enlarged.

Repairs were made to wash stands, taps, ventilators, water closets, brass work and piping, &c., in the passenger cars repaired in the car department during the year.

Repairing and altering copper pipes, pumps, heater and blower-pipes, copper piping on locomotives, also repairs to all iron and air pipes, &c., and lagging was taken off, repaired and replaced on 82 locomotives.

SESSIONAL PAPER No. 20

Water service—

This service has been maintained in efficient condition over the whole line.

Car shops—

The following cars were rebuilt:—

17 platform, 1 box.

The following cars were changed:—

2 platform to pulpwood, 1 platform to flanger.

The following cars received heavy repairs:—

6 parlour, 34 sleeping, 4 dining, 2 official, 79 first-class, 56 second-class, 29 colonist, 43 baggage, 15 postal, 15 vans, 302 freight, 2 flangers, 8 snow-ploughs.

The following cars received light repairs:—

2 parlour, 18 sleeping, 6 dining, 12 official, 45 first-class, 25 second-class, 15 colonist, 34 baggage, 20 postal, 3 vans, 2 auxiliary, 10,541 freight.

The following cars were burnt off, painted and varnished:—

2 parlour, 3 sleeping, 2 dining, 28 first-class, 4 second-class, 5 colonist, 4 baggage, 4 postal.

The following cars were painted and varnished:—

2 parlour, 7 sleeping, 1 dining, 28 first-class, 33 second-class, 8 colonist, 17 baggage, 6 postal.

The following cars were cleaned and varnished:—

2 parlour, 16 sleeping, 1 official, 29 first-class, 13 second-class, 4 colonist, 12 baggage, 6 postal, 2 motor cars.

The following cars were scraped, painted and varnished:—

2 parlour, 6 sleeping, 1 dining, 7 first-class, 7 second-class, 9 colonist, 10 baggage, 3 postal.

The following cars were cleaned, touched up and varnished:—

3 sleeping, 1 official, 3 first-class, 2 second-class, 3 colonist.

The following cars were painted and lettered:—

145 box, 121 platform, 19 gondolas, 5 hoppers, 2 flangers, 2 snow ploughs.

223 cars were reweighed and lettered.

462 cars had lettering changed from I.C.R. to I.R.C.

5,376 new chilled wheels were bored and pressed on axles.

3,140 second hand chilled wheels were bored and pressed on axles.

116 new steel wheels were bored and pressed on axles.

503 second-hand steel wheels were bored and pressed on axles,

1,600 steel tires were turned.

716 new axles were turned.

3,815 second hand axles were turned.

9,700 wheels were taken off axles.

117 engines and tenders were painted, lettered and varnished.

3 tenders were painted, lettered and varnished.

153 freight cars were fitted with straight air.

71 freight cars, ploughs and flangers were fitted with air brakes.

783 car buffers were made.

973 brake beams were made.

1 GEORGE V., A. 1911

- 3 shanty cars were fitted up and painted.
- 596 freight cars were fitted with Acme uncoupling device.
- 5 Hart convertible cars had sides and ends raised.
- 200 new wooden freight car trucks were built and applied.
- 8 locomotive pilots were made.
- 180 truck spring boards were made.
- 345 new truck bolsters were made.
- 551 new truck sides were made.
- 1,098 car draft timbers were made.
- 923 engine curtains were made.
- 24 baggage and 104 freight trucks were repaired.
- 16 footboards and 2 gangways were repaired.
- 8 train safes were repaired.

A large amount of work was done during the year repairing ticket cases, book and letter cases, desks and chairs, tool boxes, step ladders, office doors and locks, replacing broken glass, &c., &c.

In addition to the lumber prepared for repairs, &c., 2,757,174 feet were milled on store orders.

Eight hundred and seventy-six manufactures orders were completed and delivered to store.

In addition to the above numerous small articles were made and repaired for this department at Moncton, and a great deal of work was done for the maintenance and traffic departments, and also in connection with new capital work.

The following special work was done at the new shops:—

- A water crane was installed at the south end of the erecting shop.
- An air hoist was installed at the gas plant.
- A crane was installed for removing coke and ashes from the gas plant.
- An air reservoir was installed in the basement of the gas plant.
- An air pump was installed in the gas plant.
- A chain hoist for lifting coal was installed.
- A generator was installed in the power house.
- An engine was installed for the stokers.
- Two Babcock and Wilcox boilers were removed from the old shops, were given extensive repairs, and were installed in the new power house.
- All the piping in the new shops for heating purposes was completed.

In addition to the above a large amount of work was done in connection with the fitting up the new shops before and after moving into them, installing machinery, making bins, boxes, tool racks, cupboards, building iron racks, coal sheds, small offices, sidewalks, &c., &c.

The following new machines were set up in the Moncton new shops:—

Machine Shop—

- 1 car axle lathe.
- 1 wheel press for locomotive wheels.
- 1 box press.
- 2 tool grinders.
- 10 high speed lathes of various sizes.
- 1 nut facing machine.
- 2 grinder heads for general work.
- 1 stay bolt machine.
- 1 nut tapper.
- 1 drill for general use.
- 1 boring mill.

SESSIONAL PAPER No. 20

- 3 shapers.
- 3 drill presses.
- 1 locomotive axle lathe.
- 1 sottle for general use.
- 1 car wheel press.
- 1 car wheel borer.
- 1 cylinder borer.
- 1 radial drill.
- 1 locomotive rod drilling machine.
- 1 vertical milling machine for rods.
- 1 horizontal borer.
- 1 twist drill grinder for tools.
- 1 grinder.

Erecting Shop—

- 1 pipe threader.
- 1 32-inch drill for general use.
- 1 pipe bender.
- 2 bolt lathes.
- 1 tool grinder.

Boiler Shop—

- 1 slitting shear for general shearing.
- 1 shear for light sheets.
- 1 tool grinder.
- 1 flue cleaning machine.
- 1 6-spindle drill for flue sheets and mud rings.
- 1 plate clamp.
- 1 drill press for general use.
- 1 hydraulic sectional flange press.
- 1 punch.

Motion Shop—

- 2 tool room lathes for tool grinding and repairing.
- 2 power hack saws for general use.
- 1 grinder head for general use.
- 1 high speed lathe for general use.
- 2 bolt lathes for general use.
- 2 grinders for rods.
- 2 drill press.
- 3 shapers for keys, liners, &c.
- 1 universal tool grinder.
- 1 point twist drill grinder for tools.
- 1 side carriage lathe.
- 1 link grinder.

Tin and Copper Shop—

- 1 punch.
- 1 pipe threader.
- 1 circle and slitting shear.

Blacksmith Shop—

- 1 spring bending and stripping machine.
- 1 bolt shear.
- 1 tool grinder.

1 GEORGE V., A. 1911

- 1 line file cutter.
- 1 stripping and abrading machine.
- 1 whetting machine.
- 1 grindstone.
- 1 nut machine.
- 2 blast fans for forge fires.
- 1 smoke exhaust fan for forge fires.

Pattern Shop—

- 1 grinder head for general use.
- 1 hand plainer and joiner for patterns.
- 1 saw bench.
- 1 lathe for patterns.
- 1 motor head speed lathe.
- 1 double disc sander for patterns.
- 1 emery grinder for tools.
- 1 band saw and re-saw for pattern.
- 1 core box machine.
- 1 single surfacer.
- 1 scroll saw.

Freight Car Shop—

- 1 drill press for general use.
- 1 pipe threader.

Tender Shop—

- 1 drill press for general use.
- 1 grindstone.

Upholstering Shop—

- 1 single sweeper vacuum cleaner.

Cabinet Shop—

- 1 moulder.
- 1 lathe.
- 1 band saw.
- 1 dado and saw.
- 1 emery grinder.
- 1 grindstone frame.
- 1 hand gainer machine.
- 1 moulder for door panels, &c.
- 1 embosser for moulding.
- 1 rip saw, 20-inch, for general use.

Planing Mill—

- 1 large tenoner for general use.
- 1 medium borer for general use.
- 1 grindstone frame for tools.

The following regular work was done in the locomotive department at Richmond:—

- 7 locomotives received heavy and 175 specific repairs.
- 24 boilers were tested.
- 3 fire-boxes were patched.
- 1 set driving wheels were re-tired.
- 3 driving tires were turned off.

SESSIONAL PAPER No. 20

18 engine truck tires were turned off.

129 tender truck and car tires were turned off.

9 new tender truck wheels were applied.

11,880 bolts were forged.

28,200 bolts were screwed.

1,285 studs were screwed.

6 engines and tenders were painted.

221 sets metallic piston rod packing were made.

224 sets metallic valve stem packing were made.

In the car repair shop a large number of cars received repairs during the year.

A lot of special work was also done in the locomotive and car shops for the maintenance and traffic departments.

The following regular work was done in the locomotive department at Rivière du Loup:—

20 locomotives received general, 6 medium and 25 specific repairs.

1 new tube sheet and 1 new side sheet were applied.

44 new tubes were applied.

4,707 tubes were pieced and applied.

7 fireboxes were patched.

71 boilers were tested.

81 driving tires were turned off.

59 engine truck tires were turned off.

160 tender truck tires were turned off.

2 new cylinders with half saddles were applied.

1 new crank pin was made and applied.

23 pilots were made and applied.

8,000 bolts were forged.

38,000 bolts were screwed.

2,400 studs were screwed.

900 lbs. nuts were tapped.

35 engines and tenders were painted.

34,000 lbs. brass casting were machined.

345 sets metallic piston rod packing were made.

333 sets metallic valve stem packing were made.

66,000 lbs. iron forgings were made.

Coal cranes, Nos. 6, 8, 9 and 10, received general repairs.

A large number of cars received light repairs during the year.

There was also a large amount of work done for the maintenance and traffic departments in the locomotive and car shops during the year.

No. 1.—INTERCOLONIAL RAILWAY.
CAPITAL ACCOUNT, year ended March 31, 1910.

| 1909. | Dr. | \$ | cts. | 1909. | CR. | \$ | cts. |
|---------|--|---------|------|----------|------------------------|------------|------|
| Mar 31. | To cost of Intercolonial Railway to date..... | | | Mar. 31. | By Dominion of Canada. | 90,994,664 | 06 |
| | Strengthen bridges..... | 10,272 | 26 | | | | |
| | Put railway between Indiantown and Blackville into condition for operation..... | 49,994 | 90 | | | | |
| | Increase accommodation at Halifax..... | 179,953 | 93 | | | | |
| | Rolling stock..... | 10,430 | 54 | | | | |
| | Engine house, machine shops, &c., at Rivière du Loup..... | 156,945 | 33 | | | | |
| | Engine-house, &c., Chaudière Junction..... | 6,834 | 61 | | | | |
| | Improvements at Campbellton..... | 1,988 | 49 | | | | |
| | Locomotive and car shop with equipment and new freight yard at Moncton..... | 399,400 | 49 | | | | |
| | Towards double tracking parts of line..... | 68,977 | 65 | | | | |
| | Increase accommodation at Truro..... | 17,019 | 51 | | | | |
| | Improvements at Newcastle..... | 2,472 | 16 | | | | |
| | Extension to Dalhousie wharf..... | 27,500 | 00 | | | | |
| | Increased accommodation and facilities along the line..... | 100,565 | 28 | | | | |
| | Improvements at Point Tupper..... | 3,998 | 88 | | | | |
| | Diversion of line at Sydney Mines to River George..... | 20,256 | 36 | | | | |
| | Diversion of line at Chatham and branch to wharf..... | 5,228 | 44 | | | | |
| | New machinery for locomotive and car shops..... | 95,799 | 43 | | | | |
| | Increase water supply..... | 42,182 | 26 | | | | |
| | Improvements at Mulgrave..... | 18,403 | 15 | | | | |
| | Increase accommodation at Pictou..... | 800 | 64 | | | | |
| | Improvements at Loggieville..... | 25,474 | 27 | | | | |
| | Improvements at Sackville..... | 7,875 | 81 | | | | |
| | New turntables..... | 2,696 | 13 | | | | |
| | Provide an overhead crossing at Roberts about 2 miles north of Londonderry station..... | 43 | 14 | | | | |
| | Increased accommodation at Ste. Flavie..... | 3,754 | 26 | | | | |
| | Improvements at North Sydney..... | 5,771 | 37 | | | | |
| | Original construction..... | 6,644 | 09 | | | | |
| | Cut off line at Moncton..... | 1,975 | 15 | | | | |
| | Improvements at Ste. Rosalie..... | 3,540 | 32 | | | | |
| | Diversion of road to eliminate crossing at rail level between St. Cyrille and Drummondville..... | 1,300 | 00 | | | | |

SESSIONAL PAPER No. 20

| | | | | |
|---|--------------|---------------|----------------------------|---------------|
| Provide a subway crossing at Eastville, about 1 mile south of Londonderry station..... | 68 75 | | | |
| LESS To extension to Sydney Mines, \$ 1908-9..... | 1,278,467 60 | | | |
| Increased accommodation at Stellarton, 1908 9..... | 58 15 | | | |
| | | 1,278,409 45 | | 1,278,409 45 |
| | | 92,273,073 51 | | 92,273,073 51 |
| | | | By Dominion of Canada..... | |

E. and O. E.
Moncton, N.B.

S. L. SHANNON,
Comptroller.

No. 2.—INTERCOLONIAL RAILWAY.

REVENUE ACCOUNT, Year ended March 31, 1910.

| Expenditure. | \$ cts. | Earnings. | \$ cts. |
|------------------------------------|--------------|---------------------------------|--------------|
| Maintenance of Way and Structure.. | 1,622,279 75 | Passenger Earnings..... | 2,765,884 66 |
| Maintenance of Equipment..... | 1,851,792 68 | Freight Earnings..... | 6,048,884 18 |
| Traffic Expenses..... | 179,882 61 | Mail and Express Earnings. | 408,847 66 |
| Transportation Expenses..... | 4,784,667 76 | Miscellaneous Earnings..... | 44,618 49 |
| General Expenses..... | 206,447 53 | | |
| | 8,645,070 33 | | |
| Balance | 623,134 66 | | |
| | 9,268,234 99 | | 9,268,234 99 |

S. L. SHANNON,
Comptroller.

E. & O. E.,
Moncton, N.B.

No. 3.—INTERCOLONIAL RAILWAY.

MAINTENANCE of Way and Structures, Year ended March 31, 1910.

| | \$ cts. |
|--|--------------|
| No. 1. Superintendence..... | 49,342 18 |
| " 2. Ballast..... | 23,940 44 |
| " 3. Ties..... | 226,214 80 |
| " 4. Rails..... | 222,626 34 |
| " 5. Other track material..... | 128,667 88 |
| " 6. Roadway and track..... | 533,502 52 |
| " 7. Removal of snow, sand and ice..... | 91,124 39 |
| " 9. Bridges, trestles and culverts | 66,082 76 |
| " 10. Over and under grade crossings | 410 86 |
| " 11. Grade crossings, fences, cattle guards and signs..... | 37,516 41 |
| " 12. Snow and sand fences, and snow sheds | 9,802 55 |
| " 13. Signals and interlocking plants..... | 5,252 09 |
| " 14. Telegraph and telephone lines..... | 696 47 |
| " 16. Buildings, fixtures and grounds..... | 140,304 89 |
| " 17. Docks and wharfs..... | 21,141 98 |
| " 18. Roadway tools and supplies..... | 22,810 34 |
| " 22. Injuries to persons..... | 404 02 |
| " 23. Stationery and printing..... | 3,666 78 |
| " 25. Other expenses..... | 1,585 93 |
| " 26. Maintaining joint tracks, yards and other facilities—Dr..... | 44,161 18 |
| | 1,629,254 81 |
| " 27. Maintaining joint tracks, yards and other facilities—Cr..... | 6,975 06 |
| | 1,622,279 75 |

S. L. SHANNON,
Comptroller.

E. & O. E.,
Moncton, N.B.

SESSIONAL PAPER No. 20

No. 4.—INTERCOLONIAL RAILWAY.

MAINTENANCE of Equipment, Year ended March 31, 1910.

| | \$ | cts. |
|--|-----------|------|
| No. 28. Superintendence..... | 54,483 | 94 |
| " 29. Steam Locomotives—Repairs..... | 626,048 | 65 |
| " 30. Steam Locomotives—Renewals..... | 133,333 | 32 |
| " 35. Passenger Train Cars—Repairs..... | 271,828 | 78 |
| " 36. Passenger Train Cars—Renewals..... | 66,666 | 60 |
| " 38. Freight Train Cars—Repairs..... | 483,914 | 60 |
| " 39. Freight Train Cars—Renewals..... | 100,000 | 08 |
| " 44. Floating Equipment—Repairs..... | 4,171 | 50 |
| " 47. Shop Machinery and Tools..... | 33,297 | 73 |
| " 49. Injuries to Persons..... | 451 | 02 |
| " 50. Stationery and Printing..... | 10,183 | 90 |
| " 51. Maintaining Joint Equipment at Terminals—Dr..... | 3,819 | 87 |
| " 52. Other Expenses..... | 30,312 | 76 |
| " 53. Work Equipment—Repairs..... | 27,204 | 93 |
| " 54. Work Equipment—Renewals..... | 6,075 | 00 |
| | 1,851,792 | 68 |

S. L. SHANNON,

*Comptroller.*E. & O. E.,
MONCTON, N.B.

No. 5.—INTERCOLONIAL RAILWAY.

TRAFFIC Expenses, Year ended March 31, 1910.

| | \$ | cts. |
|------------------------------------|---------|------|
| No. 57. Superintendence..... | 53,801 | 72 |
| " 58. Outside Agencies..... | 61,587 | 67 |
| " 59. Advertising..... | 37,232 | 56 |
| " 60. Stationery and Printing..... | 24,810 | 53 |
| " 61. Traffic Associations..... | 2,392 | 10 |
| " 62. Other Expenses..... | 58 | 03 |
| | 179,882 | 61 |

S. L. SHANNON,

*Comptroller.*E. & O. E.,
MONCTON, N.B.

1 GEORGE V., A. 1911

No. 6.—INTERCOLONIAL RAILWAY.

TRANSPORTATION EXPENSES, year ended March 31, 1910.

| | \$ | cts. |
|--|-----------|------|
| No. 66 Superintendence..... | 79,598 | 10 |
| 67 Despatching trains..... | 142,103 | 79 |
| 68 Station employees | 626,729 | 85 |
| 69 Weighing and Car Service Associations..... | 1,622 | 69 |
| 70 Stock yards and grain elevators | 2,319 | 44 |
| 72 Station supplies and expenses..... | 86,785 | 21 |
| 73 Yardmasters and their clerks..... | 33,544 | 40 |
| 74 Yard conductors and brakemen | 121,899 | 35 |
| 75 Yard switch and signal tenders..... | 12,854 | 37 |
| 76 Yard supplies and expenses..... | 18,793 | 09 |
| 77 Yard enginemen..... | 112,975 | 08 |
| 78 Enginehouse expenses—Yard..... | 27,497 | 16 |
| 79 Fuel for yard locomotives | 152,678 | 03 |
| 80 Water for yard locomotives..... | 9,608 | 12 |
| 81 Lubricants for yard locomotives..... | 3,767 | 49 |
| 82 Other supplies for yard locomotives..... | 2,456 | 12 |
| 83 Operating joint yards and terminals—Dr | 104,241 | 79 |
| 86 Road enginemen. | 482,068 | 52 |
| 87 Enginehouse expenses—Road.. . . . | 234,189 | 21 |
| 88 Fuel for road locomotives | 1,490,049 | 28 |
| 89 Water for road locomotives..... | 49,728 | 48 |
| 90 Lubricants for yard locomotives..... | 24,063 | 61 |
| 91 Other supplies for road locomotives..... | 13,465 | 61 |
| 94 Road trainmen..... | 629,430 | 57 |
| 95 Train supplies and expenses | 177,702 | 04 |
| 96 Interlockers, block and signals—Operation... | 13,250 | 71 |
| 97 Crossing flagmen and gatemen | 12,717 | 31 |
| 98 Draw bridge operation..... | 3,807 | 06 |
| 99 Clearing wrecks..... | 16,312 | 51 |
| 100 Telegraph and telephone—Operation | 10,547 | 33 |
| 101 Operating floating equipment | 42,321 | 54 |
| 103 Stationery and printing | 53,491 | 87 |
| 105 Other expenses..... | 21,860 | 58 |
| 106 Loss and damage—Freight... .. | 29,606 | 30 |
| 107 " —Baggage..... | 157 | 84 |
| 108 Damage to property..... | 5,613 | 42 |
| 109 Damage to stock on right of way..... | 2,290 | 04 |
| 110 Injuries to persons | 7,514 | 36 |
| 111 Operating joint tracks—Dr.. . . . | 11,212 | 38 |
| CR. | 4,870,874 | 65 |
| No. 84 Operating joint yards and terminals—Cr..... | 86,206 | 89 |
| | 4,784,667 | 76 |

E. and O. E.,
MONCTON, N.B.

S. L. SHANNON,
Comptroller.

No. 7.—INTERCOLONIAL RAILWAY.

GENERAL EXPENSES, year ended March 31, 1910.

| | \$ | cts. |
|--|---------|------|
| No. 113 Salaries and expenses of general officers..... | 19,696 | 93 |
| 114 Salaries and expenses of clerks and attendants .. | 86,889 | 05 |
| 115 General office supplies and expenses | 3,454 | 23 |
| 116 Law expenses | 7,307 | 61 |
| 118 Relief department expenses | 8,000 | 00 |
| 119 Pensions..... | 63,313 | 85 |
| 120 Stationery and printing..... | 12,214 | 21 |
| 121 Other expenses..... | 5,571 | 65 |
| | 206,447 | 53 |

E. and O. E.,
MONCTON, N.B.

S. L. SHANNON,
Comptroller.

SESSIONAL PAPER No. 20

No. 8.—INTERCOLONIAL RAILWAY OF CANADA.
GENERAL STORES ACCOUNT, YEAR ENDED MARCH 31, 1910.

| Dr. | \$ | cts. | \$ | cts. | Cr. | \$ | cts. |
|---|-------|--------|-------|--------|---|-------|--------------|
| To Balance, March 31, 1909..... | | | | | By Issues during year ended March 31, 1910. | 3,363 | 105 44 |
| Purchases during year ended March 31, 1910 .. | 2,800 | 212 24 | | | Sales material, fuel, &c. | 35 | 618 31 |
| Charges from other Departments..... | 277 | 057 54 | | | Sales old material | 189 | 526 36 |
| Labour | 151 | 745 77 | | | | | 3,588,250 11 |
| Staff pay rolls..... | 3 | 321 66 | | | Balance— | | |
| | | | 3,232 | 337 21 | Ordinary stores, including fuel..... | 928 | 804 27 |
| | | | | | Roadway and bridge material | 314 | 377 42 |
| | | | | | | | 1,243,181 09 |
| | | | 4,831 | 431 80 | | | 4,831,431 80 |

(Sgd) S. L. SHANNON,
Comptroller and Treasurer.

(Sgd) C. F. BURNS,
Auditor of Disbursements, I.C.R.

MONCTON, N.B.

No. 9.—INTERCOLONIAL RAILWAY—STATEMENTS OF THE COMPTROLLER.
GENERAL BALANCE, YEAR ENDED MARCH 31, 1910.

| Dr. | | \$ | cts. | Cr. | | \$ | cts. |
|-----|--|--------|------|---|--|-----------|-------|
| To | Cash..... | | | By Dominion of Canada..... | | | |
| | General stores..... | | | Unclaimed freight..... | | 1,534,146 | 92 |
| | Station agents..... | | | Intercolonial and Prince Edward Island Rail- ways employees' Provident Fund..... | | 67 | 21 |
| | Receiver General—Provident Fund Account..... | | | | | 243,673 | 85 |
| | Auditor's Suspense Account..... | | | Suspense..... | | 3,513 | 50 |
| | Cash in Transit Account..... | | | Equipment Renewal Account..... | | 376,959 | 98 |
| | Commissary Stock..... | | | Rail Renewal Account..... | | 150,000 | 00 |
| | Expenditures for Road and Equipment Sus- pense..... | | | Freight in Transit Account..... | | 6,943 | 01 |
| | | | | | | | |
| | | | | | | | |
| To | Individuals and Companies Ledger— | | | By Individuals and Companies Ledger | | | |
| | Acadia Coal Co..... | 1,213 | 27 | Ankerst Malleable Iron Company..... | | | 40 42 |
| | Atlantic Coast Lines..... | | 1 95 | Cape Breton Ry..... | | 17 | 57 |
| | Armour Car Lines..... | | 0 54 | Chatham Ry..... | | | 0 07 |
| | H. & A. Allan..... | 13 | 35 | Chappell Bros..... | | 267 | 50 |
| | Atlantic and Lake Superior Ry..... | 1,837 | 39 | J. & A. Culligan..... | | 226 | 20 |
| | Atlanta, Birmingham and Atlantic Ry..... | | 0 26 | Colonial Granite Co..... | | 125 | 00 |
| | Atchison, Topeka and Santa Fe Ry..... | 3 | 17 | Cornwall and York Cotton Mills Co..... | | 430 | 18 |
| | Steamship 'Amelia'..... | | 0 70 | L. E. Couture..... | | 346 | 70 |
| | Austin Lumber Co..... | 368 | 18 | Department of Justice..... | | 1,000 | 00 |
| | Boston and Maine Ry..... | 343 | 10 | Dubs & Co..... | | 98 | 63 |
| | Baltimore and Ohio Ry..... | 24 | 87 | Dominion Express Co..... | | 9 | 50 |
| | Boston and Albany Ry..... | 294 | 68 | Dominion Bridge Co..... | | 20 | 87 |
| | Buffalo, Rochester and Pittsburgh Ry..... | | 2 20 | G. Dumont..... | | 95 | 00 |
| | E. Bigney..... | 17 | 73 | Douglas Bros..... | | 400 | 00 |
| | Boston Steamship Co..... | 30 | 16 | W. H. Duffy..... | | 288 | 85 |
| | John Breakey..... | 12 | 12 | Elmsdale Co..... | | 1,190 | 18 |
| | Brown Machine Co..... | 314 | 14 | T. E. Fernald & Co..... | | 223 | 50 |
| | Caracquet Ry..... | 14,083 | 69 | Grand Lake Lumber Co..... | | 383 | 00 |
| | Canadian Express Co..... | 4 | 71 | General Storekeeper..... | | 129 | 23 |
| | Canadian Pacific Ry..... | 12,461 | 02 | Great North Western Telegraph Co..... | | 2 | 48 |
| | Canadian Pacific Ry. (N. B. Div.)..... | 11,709 | 11 | By L. Goodspeed & Son..... | | 231 | 41 |
| | Charlottetown Steam Navigation Co..... | 16 | 82 | Almer Gordon..... | | 196 | 72 |
| | Central Vermont Ry..... | 407 | 46 | Harris Forge Co..... | | 391 | 00 |
| | Cumberland Ry. & Coal Company..... | 447 | 36 | J. & D. A. Harquail..... | | 492 | 62 |
| | Canada Iron Corporation..... | 600 | 51 | Chas. & Davidson Mill..... | | 448 | 81 |
| | Canadian Northern Ry..... | 130 | 17 | J. A. Kirkpatrick..... | | 310 | 50 |
| | Cincinnati, Hamilton and Dayton Ry..... | 43 | 46 | J. Lord..... | | 100 | 00 |
| | Cleveland, Cincinnati, Chicago & St. Louis Ry..... | 39 | 68 | W. L. Loggie & Co..... | | 30 | 00 |
| | Chicago, Milwaukee and St. Paul Ry..... | 38 | 37 | | | | |
| | Chicago, St. Paul, Minneapolis and Omaha Ry..... | 4 | 00 | | | | |
| | Chicago and North Western Ry..... | 14 | 66 | | | | |
| To | Cumberland Ry. & Coal Company..... | | | | | | |
| | Canada Iron Corporation..... | | | | | | |
| | Canadian Northern Ry..... | | | | | | |
| | Cincinnati, Hamilton and Dayton Ry..... | | | | | | |
| | Cleveland, Cincinnati, Chicago & St. Louis Ry..... | | | | | | |
| | Chicago, Milwaukee and St. Paul Ry..... | | | | | | |
| | Chicago, St. Paul, Minneapolis and Omaha Ry..... | | | | | | |
| | Chicago and North Western Ry..... | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| | | | |
|--|-----------|---|-----------|
| S. Cunard & Co..... | 1 85 | Jos. Lecons..... | 502 55 |
| T. B. Calhoun..... | 5 00 | Nap. Mercier..... | 98 50 |
| G. S. Campbell & Co..... | 43 25 | W. H. Miller..... | 19 00 |
| Chicago and Alton Ry..... | 41 | J. T. Munro..... | 55 00 |
| Cincinnati, New Orleans and Texas Pacific Ry.. | 17 34 | W. A. McKay & Co..... | 138 00 |
| Chicago, Rock Island Gulf Ry..... | 1 89 | McKay Mining Co..... | 167 66 |
| Chicago, Burlington and Quincy..... | 5 26 | Reid McManus..... | 2 64 |
| Central Ry. of New Jersey..... | 1 18 | McLean Milling Co..... | 776 08 |
| Chesapeake and Ohio Ry..... | 8 86 | Nova Scotia Steel & Coal Co..... | 465 93 |
| Chicago and Eastern Illinois Ry..... | 4 92 | New Brunswick Telephone Co..... | 27 62 |
| Central Ontario Ry..... | 1 53 | Nova Scotia Construction Co..... | 7 50 |
| Chicago, Indiana and Louisville Ry..... | 40 | J. R. Porter..... | 186 00 |
| Chicago, Cincinnati and Louisville Ry..... | 7 87 | N. Piche & Fils..... | 960 94 |
| Chicago, Indiana and Southern Ry..... | 5 04 | Alphonse Pineau..... | 208 45 |
| Colchester Coal and Railway Co..... | 360 35 | Primrose Bros..... | 445 17 |
| Chicago, Rock Island and Pacific Ry..... | 35 36 | David Porter..... | 2 40 |
| Chicago Great Western Ry..... | 4 36 | Quebec Construction Co..... | 51 44 |
| Corbett & Floesch..... | 1,354 53 | Sessenwein Bros..... | 2 73 |
| Copper Crown Co..... | 45 13 | James W. Smith..... | 111 24 |
| Thomas Cote..... | 5 24 | Shives Lumber Co..... | 6 00 |
| | | Enoch Steeves..... | 372 25 |
| | | B. L. Tucker..... | 210 19 |
| | | Edward Ruel..... | 106 50 |
| | | Vanderbeek & Sons..... | 5 00 |
| | | S. E. Vaughan & Co..... | 891 00 |
| | | Alexander Watson..... | 356 00 |
| | | M. Wood & Sons..... | 150 00 |
| | | H. W. Wentzell..... | 160 50 |
| To Frank A Cutting Co..... | 3 30 | By Individuals and Companies Ledger Suspense— | |
| Charleston and Western Carolina Ry..... | 0 28 | Canadian Iron Corporation..... | 2,242 50 |
| Canada Foundry Co..... | 89 14 | General Storekeeper..... | 186 14 |
| Cincinnati and Muskingum Valley Ry..... | 5 50 | Fraserville Foundry..... | 169 50 |
| Dominion Tar and Chemical Co..... | 6 25 | H. J. Garson & Co..... | 6,311 75 |
| Department of Justice..... | | J. Hillis & Son..... | 775 91 |
| Department of Public Works..... | 16,546 12 | Northern New Brunswick and Seaboard Airline Ry..... | 1 80 |
| Department of Marine and Fisheries..... | 88 55 | New Brunswick and Prince Edward Island Ry..... | 440 18 |
| Department of Militia and Defence..... | 779 81 | Portland Rolling Mills..... | 1,486 60 |
| Dominion Atlantic Ry..... | 4,025 50 | Prince Edward Island Ry..... | 18 76 |
| Dominion Coal Co..... | 2,212 10 | John Simon & Co..... | 421 02 |
| Dominion Iron and Steel Co..... | 16,491 27 | Shives Lumber Co..... | 1 19 |
| Delaware and Hudson Co..... | 44 18 | Nova Scotia Steel and Coal Co..... | 10 72 |
| Delaware, Lackawana and Western Ry..... | 14 30 | | |
| Duluth, South Shore and Atlantic Ry..... | 0 51 | By Traffic Ledger— | |
| Department of Interior..... | 27 70 | Allan Bros. & Co..... | 101 70 |
| Department of Railways and Canals (stores acct.) | 6 24 | Atchison, Topeka and Santa Fe Ry..... | 486 85 |
| Detroit, Toledo and Ironton Ry..... | 35 89 | Baltimore and Ohio Ry..... | 60 04 |
| Alfred Dickie Lumber Co..... | 120 91 | Boston and Maine Ry..... | 3,616 62 |
| Detroit and Toledo Shore Line..... | 2 95 | | |
| | | Carried forward..... | |
| | | | 13,987 26 |
| | | | 12,066 07 |

No. 9.—INTERCOLONIAL RAILWAY—Continued.
(GENERAL BALANCE, YEAR ENDED MARCH 31, 1910—Continued.

| Dr. | \$ | cts. | Cr. | \$ | cts. |
|--|---------|------|--|-------|------|
| Brought forward..... | | | Brought forward..... | | |
| Doud Stock Car Co..... | 9 | 91 | Canadian Northern Ry..... | 1,079 | 73 |
| T. A. S. Dewolfe & Son..... | 19 | 02 | Charlottetown Steam Navigation Co..... | 68 | 26 |
| Emile Dube..... | 4 | 00 | Chicago and Alton Ry..... | 74 | 85 |
| Daveluyville Station..... | 12 | 80 | Chicago, Burlington and Quincy Ry..... | 642 | 22 |
| Elgin and Havelock Ry..... | 1,866 | 84 | Chicago Great Western Ry..... | 716 | 74 |
| Erie Ry..... | 125 | 31 | Chicago North Western Ry..... | 1,546 | 47 |
| Eastern Township Co..... | 16 | 63 | | | |
| Evansville and Terre Haute Ry..... | 1 | 44 | | | |
| Empire Line..... | 6 | 25 | | | |
| Captain J. A. Farquhar..... | 9 | 60 | | | |
| Furness, Withy & Co..... | 45 | 47 | | | |
| Freight Claim Agent..... | 3 | 68 | | | |
| Fraserville Navigation Co..... | 14 | 71 | | | |
| Grand Trunk Ry..... | 10,835 | 41 | | | |
| Great Northern Ry. of Canada..... | 12 | 91 | | | |
| O. Gurett & Son..... | 80 | 92 | Chicago, Milwaukee and St. Paul Ry..... | 814 | 99 |
| Galena Signal Oil Company..... | 616 | 00 | Cleveland, Cincinnati, Chicago and St. Louis Ry..... | 71 | 20 |
| H. J. Carson & Co..... | 13 | 84 | Duluth, South Shore and Atlantic Ry..... | 841 | 59 |
| Graham & Co..... | 58 | 43 | Great Northern Ry. Line..... | 1,303 | 88 |
| German-American Tank Line..... | 10 | 47 | Fraserville Navigation Co..... | 16 | 52 |
| Grand Trunk Ry. Suspense..... | 98 | 75 | Interprovincial Navigation Co..... | 13 | 80 |
| Halifax and South Western Ry..... | 111,096 | 07 | Inverness Ry. & Coal Co..... | 224 | 67 |
| Hampton and St. Martins Ry..... | 472 | 16 | Lehigh Valley Ry..... | 1 | 58 |
| Halifax Station Labour..... | 1,500 | 00 | Lothbiniere and Megantic Ry..... | 1 | 45 |
| J. Hillis & Sons..... | 210 | 19 | Michigan Central Ry..... | 64 | 14 |
| M. J. Haney..... | 187 | 89 | Maine Central Ry..... | 6,465 | 19 |
| W. Hood & Son..... | 132 | 00 | Minneapolis, St. Paul and S. S. Marie Ry..... | 1,146 | 70 |
| Humphrey's Glass Works..... | 57 | 00 | Northern Pacific Ry..... | 683 | 90 |
| A. J. Hart..... | 78 | 00 | New England Navigation Co..... | 19 | 14 |
| Inverness Ry. & Coal Co..... | 242 | 35 | New York Central and Hudson River Ry..... | 121 | 04 |
| Intercolonial Coal Mining Co..... | 99 | 96 | New York, New Haven and Hartford Ry..... | 549 | 68 |
| Illinois Central Ry..... | 18 | 11 | Pennsylvania Ry..... | 11 | 29 |
| Imperial Oil Co..... | 22 | 29 | Quebec Central Ry..... | 250 | 13 |
| Intercolonial and Great Northern Ry..... | 11 | 05 | Southern Pacific Ry..... | 49 | 80 |
| Iowa Central Ry..... | 1 | 16 | Temiscouata Ry..... | 99 | 10 |
| Kent Northern Ry..... | 8,574 | 54 | Temiskaming and Northern Ontario Ry..... | 244 | 34 |
| Kanawha and Michigan Ry..... | 2 | 68 | Wabash Ry..... | 735 | 14 |
| Kennedy & McDonald..... | 27 | 96 | | | |
| Lotbiniere and Megantic Ry..... | 3 | 28 | | | |

22,162 75

| Car Service Ledger | | |
|--|-----------|--------|
| Londonderry Iron & Mining Company. | 21,789 54 | |
| Lehigh Valley Ry | 184 02 | |
| Louisiana and Western Ry | 0 41 | |
| Louisville and Nashville Ry | 7 24 | |
| Lake Shore and Michigan Southern Ry | 96 39 | |
| Lake Erie and Western Ry | 7 20 | |
| R. S. Lowe. | 96 10 | |
| Lexington and Eastern Ry | 4 04 | |
| Lotbinière Lumber Co. | 3 25 | |
| Levis County Electric Co. | 2 00 | |
| Moncton & Buctouche Co. | 482 15 | |
| Michigan Central Ry. | 43 75 | |
| Maine Central Ry. | 142 91 | |
| Montmagny Light & Pulp Co | 367 22 | |
| T. Malcolm | 1,585 83 | |
| Minudie Coal Co | 705 37 | |
| Missouri Pacific Ry | 45 82 | |
| Minneapolis, St. Paul and S. S. Marie Ry | 49 44 | |
| Missouri, Kansas and Texas Ry. | 8 35 | |
| Maritime Coal, Ry. and Power Co. | 1,668 52 | |
| Minneapolis and St. Louis Ry.. | 1 00 | |
| Mont Joli Water Co. | 9 45 | |
| Mathie Ellis Co. | 26 28 | |
| Mobile and Ohio Ry | 2 50 | |
| Milwaukee Refrigerator Transit Co. | 10 65 | |
| H. W. Monsell & Co | 18 08 | |
| Morrill Refrigerator Line. | 4 08 | |
| Montreal Locomotive Works. | 1 45 | |
| Matapedia Lumber Co. | 1 00 | |
| Mississippi Central Ry | 1 19 | |
| McLean, Holt & Co. | 189 00 | |
| George McSweeney. | 225 00 | |
| H. F. McDougall. | 8 46 | |
| E. D. McGrath. | 7 70 | |
| W. P. McNeil & Co. | 101 48 | |
| New Brunswick Coal & Ry. Co. | 47,204 37 | |
| New York Central and Hudson River Ry | 440 38 | |
| National Despatch Line. | 42 55 | |
| Newfoundland Ry | 187 98 | |
| New York, New Haven & Hartford Ry | 24 56 | |
| New York, Chicago & St. Louis Ry. | 63 31 | |
| New Brunswick & Prince Edward Island Ry. | 3,629 74 | |
| Northern Pacific Ry | 2 66 | |
| National Despatch Great Eastern Line. | 241 75 | |
| Northern Central Ry. | 30 | |
| J. Norris & Co. | 22 22 | |
| Norfolk & Western Ry | 98 | |
| New Orleans & North Eastern Ry. | 6 67 | |
| Carried forward. | | |
| By Bay of Quinte Ry. | | 25 |
| Cincinnati, Hamilton and Dayton Ry. | | 10 00 |
| Durham & Southern Ry | | 1 00 |
| Evansville and Terre Haute Ry. | | 18 00 |
| Ironton Ry. | | 4 20 |
| International Ry. | | 12 00 |
| Lotbinière and Megantic Ry | | 20 40 |
| Moshassuck Valley Ry. | | 50 |
| McKeesport Connecting Ry. | | 1 50 |
| Natchez, Columbia and Mobile Ry | | 50 |
| Port Huron Southern Ry. | | 1 15 |
| Pontiac, Oxford and Northern Ry. | | 8 33 |
| Stewartstown Ry. | | 30 |
| Tellico Ry. | | 1 20 |
| Woodstock Ry. | | 60 |
| Rents Ledger:— | | |
| Canada Ry. News Co. | | 666 60 |
| Canadian Pacific Ry. | | 43 00 |
| D. S. LeBlanc. | | 20 |
| T. B. Cochran. | | 01 |
| Town of Fraserville | | 1 00 |
| Bell Telephone Co | | 3 00 |
| Canadian Express Co. | | 02 |
| Carried forward. | | |
| Carried forward. | | |

NO. 9.—INTERCOLONIAL RAILWAY—Continued.
GENERAL BALANCE, YEAR ENDED MARCH 31, 1910—Continued.

| Dr. | \$ | cts. | \$ | cts. | Cr. | \$ | cts. |
|--|--------|------|----|------|----------------------|----|------|
| Brought forward..... | | | | | Brought forward..... | | |
| To New York, Ontario & Western Ry..... | | 4 72 | | | | | |
| National Labour Congress.... | 446 | 40 | | | | | |
| North Shore Ry Co.. | 223 | 74 | | | | | |
| New Canadian Co. | 283 | 96 | | | | | |
| Northern New Brunswick and Seaboard Ry . . . | 2,234 | 01 | | | | | |
| New Brunswick Cold Storage Co | 105 | 00 | | | | | |
| New Brunswick Pulp and Paper Co. | 81 | 34 | | | | | |
| New Brunswick Dock and Terminal Co. | 70 | 00 | | | | | |
| Oregon Railway and Navigation Co. | 2 | 55 | | | | | |
| Ocean charges on freight at Halifax | 3,423 | 63 | | | | | |
| Post Office Department | 32,030 | 15 | | | | | |
| Prince Edward Island Ry | 205 | 97 | | | | | |
| Pictou Station labour | 200 | 00 | | | | | |
| Pullman Co..... | 1 | 86 | | | | | |
| Pennsylvania Ry | 82 | 32 | | | | | |
| Price Bros. | 1,336 | 02 | | | | | |
| Pittsburg, Cincinnati, Chicago and St. Louis Ry. | 12 | 32 | | | | | |
| Pennsylvania Co.. | 73 | 69 | | | | | |
| Pere Marquette Ry..... | 75 | 66 | | | | | |
| Pittsburg and Lake Erie Ry | 11 | 15 | | | | | |
| Philadelphia and Reading Ry | 35 | 79 | | | | | |
| Philadelphia, Baltimore and Washington Ry . . | 6 | 83 | | | | | |
| H. M. Price & Co | 305 | 43 | | | | | |
| Pickford & Black..... | 169 | 87 | | | | | |
| Pacific Fruit Express..... | 13 | 51 | | | | | |
| Felix Pichette..... | 7 | 50 | | | | | |
| Quebec Central Ry.. . . . | 30,866 | 00 | | | | | |
| Quebec Southern Ry. (new account) | 397 | 78 | | | | | |
| Quebec and Lake St. John Ry | 49 | 42 | | | | | |
| Quebec Southern Ry. (old account). | 25,748 | 14 | | | | | |
| Rhodes, Curry & Co | 2,507 | 23 | | | | | |
| Rutland Ry | 13 | 02 | | | | | |
| Chas. D. Ruddock | 110 | 00 | | | | | |
| Ryan & MacDonnell | 3,736 | 29 | | | | | |
| William Routledge..... | 35 | 21 | | | | | |
| Record Foundry Co. | 6 | 90 | | | | | |
| Railway Automatic Car Co. | 61 | 40 | | | | | |
| Reid Wrecking Co | 35 | 00 | | | | | |
| Swift Refrigerator Line..... | 2 | 85 | | | | | |

| | | | |
|---|----------|------------|----------------------|
| To, Sherbrooke Tank Line..... | 0 48 | | |
| Sydney Cement Co..... | 526 53 | | |
| Salisbury and Harvey Ry..... | 7,901 34 | | |
| Southern Ry..... | 1 71 | | |
| St Lawrence & Adirondack Ry..... | 19 44 | | |
| Seaboard Air Line..... | 2 12 | | |
| St. Louis & San Francisco Ry..... | 2 30 | | |
| St. Louis South Western Ry..... | 3 59 | | |
| Silliker Car Co..... | 20 36 | | |
| St. Monique Station..... | 10 00 | | |
| Santa Fe Refrigerator Despatch..... | 11 03 | | |
| J. B. Sangster..... | 6 04 | | |
| J. Willard Smith..... | 10 00 | | |
| Sussex Station..... | 25 00 | | |
| Sydney & Glace Bay Ry..... | 1 72 | | |
| Shaw & Mason..... | 51 00 | | |
| N. C. Scott..... | 29 64 | | |
| St. John Station Labour..... | 1,000 00 | | |
| Santa Fe Prescott and Phoenix Ry..... | 0 30 | | |
| Temiscouata Ry..... | 118 60 | | |
| Texas & Pacific Ry..... | 1 74 | | |
| Toronto, Hamilton & Buffalo Ry..... | 30 40 | | |
| Trois Pistoles Pulp & Paper Co..... | 73 82 | | |
| Transcontinental Ry. Commissioners..... | 8,214 77 | | |
| William Thomson & Co..... | 11 40 | | |
| D. Tremblay..... | 123 29 | | |
| S. M. Tweedie..... | 121 90 | | |
| Toronto Construction Co..... | 1,015 44 | | |
| Vandalia Line..... | 0 40 | | |
| Uncurrent & failed banknotes..... | 14 00 | | |
| Union Refrigerator Transit Co..... | 1 20 | | |
| Vicksburg, Shreveport and Pacific Ry..... | 0 79 | | |
| Union Pacific Ry..... | 2 43 | | |
| Union Line..... | 1 70 | | |
| Wabash Ry..... | 100 73 | | |
| Western Union Telegraph Co..... | 65 36 | | |
| A. N. Whitman & Son..... | 150 00 | | |
| E. A. Wallberg..... | 4,839 63 | | |
| Wisconsin Central Ry..... | 10 25 | | |
| Wheeling and Lake Erie Ry..... | 0 30 | | |
| Western Refrigerator Despatch..... | 0 93 | | |
| Washington County Ry..... | 11 62 | | |
| York & Carleton Ry..... | 230 56 | 432,985 04 | |
| Individuals and Companies Ledger Suspense:— | | | |
| Dominion Atlantic Ry..... | 58 04 | | |
| Grand Trunk Ry..... | 0 94 | | |
| Halifax and South Western Ry..... | 81 04 | | |
| Carried forward..... | | | Carried forward..... |

No. 9.—INTERCOLONIAL RAILWAY—Continued.

GENERAL BALANCE, YEAR ENDED MARCH 31, 1910—Continued

| DR. | \$ | cts. | \$ | cts. | Cr. | \$ | cts. |
|--|--------|------|----|-----------|----------------------|----|------|
| Brought forward..... | | | | | Brought forward..... | | |
| Montreal Locomotive and Machine Co..... | | 0 83 | | | | | |
| McLean, Holt & Co. | 723 | 50 | | | | | |
| New Brunswick Docks and Terminals Co | 1 | 79 | | | | | |
| Temiscouata Ry..... | | 0 62 | | | | | |
| International Ry..... | | 0 38 | | | | | |
| Pullman Car Co. | | 0 78 | | | | | |
| | | | | 867 92 | | | |
| To Traffic Ledger : | | | | | | | |
| H. & A. Allan..... | 1,469 | 21 | | | | | |
| J. & A. Allan | 4 | 95 | | | | | |
| Canadian Pacific Ry..... | 7,732 | 92 | | | | | |
| Dominion Steamship Line..... | 44 | 05 | | | | | |
| Dominion Coal Co..... | 79 | 05 | | | | | |
| Grand Trunk Ry..... | 18,076 | 01 | | | | | |
| Lake Shore and Michigan Southern Ry..... | 5 | 25 | | | | | |
| New York, New Haven and Hartford Ry..... | 2,181 | 20 | | | | | |
| Reid-Newfoundland Ry..... | 8,846 | 13 | | | | | |
| Salvation Army..... | 2,938 | 12 | | | | | |
| | | | | 41,376 89 | | | |
| Car Service Ledger :— | | | | | | | |
| Albany and Hudson Ry..... | 4 | 25 | | | | | |
| Buffalo and Susquehanna Ry..... | 8 | 00 | | | | | |
| Brockville, Westford and Northwestern Ry. | 3 | 25 | | | | | |
| Chicago, Peoria and St. Louis Ry..... | 0 | 50 | | | | | |
| Chicago, Cincinnati and Louisville Ry..... | 137 | 25 | | | | | |
| Carolina Valley Ry..... | 0 | 75 | | | | | |
| Dublin and Savannah Ry..... | 0 | 25 | | | | | |
| Erie Ry. | 1 | 25 | | | | | |
| Forth, Smith and Western Ry..... | 1 | 00 | | | | | |
| Genesee and Wyoming Ry..... | 4 | 75 | | | | | |
| Georgia and Northern Ry..... | 5 | 00 | | | | | |
| | | | | | | | |
| To Greenwich and Johnsonville Ry..... | 53 | 25 | | | | | |
| Irondale, Bancroft and Ottawa Ry..... | 3 | 75 | | | | | |
| Mississippi Central Ry | 9 | 50 | | | | | |
| Minneapolis and St. Louis Ry. | 50 | 25 | | | | | |
| Merer Valley Ry..... | 1 | 50 | | | | | |
| New York and Pennsylvania Ry..... | 2 | 00 | | | | | |
| New York, Philadelphia and Norfolk Ry | 6 | 00 | | | | | |
| New York, New Haven and Hartford Ry..... | 1,478 | 65 | | | | | |

| | | | |
|--|--------|----------|----------------------|
| Norwood and Lawrence Ry..... | 204 75 | | |
| Quebec and Lake St. John Ry. | 5 50 | | |
| Quebec Ry., Light and Power Co. | 4 00 | | |
| Rariton River Ry..... | 3 00 | | |
| Rapid River Ry..... | 1 75 | | |
| Randolph and Cumberland Ry..... | 25 | | |
| St. Louis, Watkins and Gulf Ry..... | 2 50 | | |
| Toledo Terminal Ry..... | 222 30 | | |
| Temiskaming and Northern Ontario Ry..... | 29 25 | | |
| White River Ry..... | 49 50 | | |
| | | 2,293 95 | |
| By Rents Ledger :— | | | |
| J. St. McLeod..... | 6 00 | | |
| Theo. Boucher..... | 30 00 | | |
| J. J. Irvine..... | 32 | | |
| E. D. McGrath..... | 8 36 | | |
| Reid Newfoundland Ry..... | 466 59 | | |
| W. A. Clarke | 3 00 | | |
| F. Pichette..... | 105 00 | | |
| Canadian Pacific Ry..... | 329 14 | | |
| Post Office Dept..... | 43 75 | | |
| Western Union Telegraph Co., | 14 40 | | |
| Douglas Hannah..... | 1 56 | | |
| James Mulroney..... | 1 05 | | |
| Duncan McGee..... | 2 00 | | |
| E. Thompson..... | 1 73 | | |
| C. Villeux..... | 20 00 | | |
| N. Lamontagne..... | 15 00 | | |
| Misses Camire..... | 12 00 | | |
| Maurice Camire..... | 11 00 | | |
| Mrs. J. Atkinson..... | 85 00 | | |
| Mrs. L. Roberge..... | 80 00 | | |
| James Cloutier..... | 34 00 | | |
| Geo. Cloutier..... | 34 00 | | |
| A. Begin..... | 156 00 | | |
| Jean Lamothe | 36 00 | | |
| Louis Boisvert..... | 8 00 | | |
| Emile St Laurent | 173 00 | | |
| Peter Bernier..... | 10 00 | | |
| David Rouleau..... | 24 00 | | |
| Dane C. W. Carrier..... | 204 00 | | |
| Olivier Gingras..... | 51 00 | | |
| Arthur Lamontagne..... | 4 00 | | |
| L. N. Letarte..... | 0 06 | | |
| J. D. Dennings..... | 2 00 | | |
| E. J. Smith..... | 1 00 | | |
| J. A. R. Wier..... | 7 00 | | |
| Mrs. Agnes Weir..... | 1 00 | | |
| Thomas Sharpe..... | 2 00 | | |
| To | | | |
| Carried Forward..... | | | Carried forward..... |

No. 9.—INTERCOLONIAL RAILWAY—Continued.
GENERAL BALANCE, YEAR ENDED MARCH 31, 1910—Concluded.

| Dr. | \$ | cts. | Cr. | \$ | cts. |
|-----------------------------|----|-------|-----------------------|----|------|
| Brought forward | | | Brought forward | | |
| Mrs. D. McLean..... | | 4 00 | | | |
| E. S. Vye..... | | 0 75 | | | |
| A. B. Copp | | 3 00 | | | |
| E. J. Smith | | 1 00 | | | |
| J. McDonald | | 1 00 | | | |
| John R. Stewart | | 0 25 | | | |
| William Young | | 5 00 | | | |
| Chas. Richards | | 3 00 | | | |
| William Plummer..... | | 2 00 | | | |
| D. S. Harper | | 1 00 | | | |
| Patrick McCourt..... | | 1 00 | | | |
| Adam Mahar..... | | 0 25 | | | |
| Geo. Mann | | 0 25 | | | |
| Benj. Smith | | 0 25 | | | |
| Geo. Lovett..... | | 0 75 | | | |
| Municipality of Amqui. | | 9 00 | | | |
| E. Hutchinson | | 10 00 | | | |
| D. McEvoy..... | | 5 00 | | | |
| B. Gladwin | | 5 00 | | | |
| Atkinson & McLeod. | | 2 00 | | | |
| E. O. Steeves | | 2 00 | | | |
| P. A. Grant | | 15 00 | | | |
| M. McLean | | 15 00 | | | |
| Geo. Lightle | | 1 00 | | | |
| Geo. W. White | | 3 75 | | | |
| A. McIsaac | | 5 00 | | | |
| J. A. Kirkpatrick | | 1 00 | | | |
| John C. Cass..... | | 30 00 | | | |
| D. Gagne | | 1 00 | | | |
| M. A. McLeod..... | | 5 00 | | | |
| R. Allan | | 6 00 | | | |
| Geo. Lovett | | 0 50 | | | |
| Alex. McDonald. | | 2 00 | | | |
| W. F. Morgan..... | | 1 00 | | | |
| H. F. McDougall | | 1 00 | | | |
| Strathcona Coal Co..... | | 1 00 | | | |
| Canadian Express Co..... | | 6 25 | | | |
| Town of Shediac..... | | 1 00 | | | |
| Dominion Express Co.... | | 6 25 | | | |

| | | |
|---|----------|----------------------|
| James Slean..... | 3 00 | |
| D. C. McKenzie & R. Graham..... | 15 00 | |
| D. Patterson..... | 4 00 | |
| M. A. McLeod..... | 5 00 | |
| A. M. Rowan..... | 250 00 | |
| W. R. Steeves..... | 0 79 | |
| Central Telephone Co..... | 19 00 | |
| Harris Abattoir Co..... | 5 00 | |
| City of Sydney..... | 1 00 | |
| John Legere..... | 0 42 | |
| Le Credit Municipal Canadien..... | | |
| Canadian Express Co..... | 6 25 | |
| Charles Love..... | 2 00 | |
| James Barclay..... | 1 00 | |
| Sanderson Mfg. Co..... | 5 00 | |
| Canadian Express Co..... | 6 25 | |
| Nova Scotia Telephone Co..... | 10 00 | |
| Town of Rimouski..... | 24 00 | |
| Lieut. General Laurie..... | 5 00 | |
| New Brunswick Cold Storage Co..... | 251 00 | |
| Trueman Wheaton..... | 5 00 | |
| John W. Logan..... | 5 00 | |
| Imperial Oil Co..... | 5 00 | |
| Robert Douglas..... | 1 00 | |
| Antigonish and Sherbrook Telephone Co..... | 2 00 | |
| E. Banville..... | 1 00 | |
| A. A. O'Donnell..... | 1 00 | |
| Dartmouth Ferry Commission..... | 1 00 | |
| Dominion Express Co..... | 20 00 | |
| Transcontinental Railway Commissioners..... | 1 00 | |
| John H. Adams..... | 1 00 | |
| Emile Paturel..... | 1 00 | |
| Canadian Express Co..... | 0 48 | |
| Geo. Cooper and J. P. Cunningham..... | 12 50 | |
| B. N. S. Underhill..... | 1 00 | |
| Furness, Withy & Co..... | 16 67 | |
| Sackville Hay and Feed Co..... | 7 50 | |
| McKay Mining Co..... | 5 00 | |
| H. McC. Hait..... | 30 00 | |
| Thos. Belanger..... | 1 00 | |
| Trustees of Y. M. C. A., Campbellton..... | 10 00 | |
| Canadian Express Co..... | 25 00 | |
| H. M. Kent..... | 5 00 | |
| Samuel Melanson..... | 5 00 | |
| Doucett Bros..... | 5 00 | |
| City of Sydney..... | 1 00 | |
| J. H. Stewart..... | 2 50 | |
| Imperial Oil Co..... | 90 00 | |
| | 3,016 57 | |
| Carried forward..... | | Carried forward..... |

No. 9.—INTERCOLONIAL RAILWAY—Concluded.
GENERAL BALANCE, YEAR ENDING MARCH 31, 1910.

| Dr. | \$ | cts. | \$ | cts. | Cr. | \$ | cts. |
|----------------------|----|--------|----|--------------|----------------------|----|--------------|
| Brought forward..... | | | | | Brought forward..... | | |
| Advances— | | | | | | | |
| H. M. Stevens..... | | 5 06 | | | | | |
| A. W. Belyea..... | | 10 00 | | | | | |
| E. H. McAlpine..... | | 290 00 | | | | | |
| A. Gallipeault..... | | 100 00 | | | | | |
| T. P. Owens..... | | 900 00 | | | | | |
| | | | | 1,305 06 | | | |
| | | | | 2,364,318 19 | | | 2,364,318 19 |

E. & O. E.,
MONCTON, N.B.

S. L. SHANNON,
Comptroller.

SESSIONAL PAPER No. 20

INTERCOLONIAL RAILWAY OF CANADA.

STATEMENT of Averages, year ending March 31, 1910.

| | |
|--|------------|
| Mileage of railway..... | 1,447·13 |
| Engine mileage..... | 8,608·486 |
| Total train mileage..... | 6,682·353 |
| Total car mileage..... | 94,384·628 |
| <hr/> | |
| Ratio of earnings to gross earnings— | Per cent. |
| Revenue from transportation..... | 99·32 |
| Revenue from operations other than transportation..... | ·68 |
| Gross earnings per mile of railway..... Dollars | 6,404·56 |
| " engine mile..... " | 1·08 |
| " train mile..... " | 1·39 |
| " car mile..... Cents | 9·82 |
| <hr/> | |
| Ratio of expenses to gross earnings— | Per cent. |
| Maintenance of way and structures..... | 17·50 |
| " equipment..... | 19·98 |
| Traffic expenses..... | 1·94 |
| Transportation expenses..... | 51·62 |
| General expenses..... | 2·23 |
| <hr/> | |
| Expenses per train mile— | Cents. |
| Maintenance of way and structures..... | 24·28 |
| " equipment..... | 27·71 |
| Traffic expenses..... | 2·69 |
| Transportation expenses..... | 71·60 |
| General expenses..... | 3·09 |
| <hr/> | |
| Expenses per mile of railway— | Dollars. |
| Maintenance of way and structures..... | 1,121·03 |
| " equipment..... | 1,279·63 |
| Traffic expenses..... | 124·30 |
| Transportation expenses..... | 3,306·32 |
| General expenses..... | 142·66 |
| <hr/> | |
| Locomotive and car repairs, per locomotive and car— | Dollars. |
| Locomotives..... | 1,504·72 |
| Passenger cars..... | 604·87 |
| Freight cars..... | 39·16 |

(Sgd.) S. L. SHANNON,
Comptroller and Treasurer.

C. F. BURNS,
Auditor of Disbursements, I.C.R.

1 GEORGE V., A. 1911

INTERCOLONIAL RAILWAY OF CANADA.

COMPARATIVE STATEMENT of principal Revenue Producing Freight carried over the Intercolonial Railway in 1908-09 and 1909-10.

| DESCRIPTION. | Year ended 31st March, 1909. | Year ended 31st March, 1910. |
|--|------------------------------------|------------------------------------|
| | Tons. | Tons. |
| <i>Product of Agriculture :</i> | | |
| Grain | 103,896 | 155,484 |
| Flour | 146,692 | 160,817 |
| Potatoes. | 26,842 | 31,232 |
| Hay. | 36,021 | 72,229 |
| Apples, fruit and vegetables | 15,648 | 18,855 |
| Other mill products. | 34,519 | 31,511 |
| Cotton | 3,885 | 3,723 |
| <i>Products of Animals :</i> | | |
| Hogs and horses. | 8,493 | 8,898 |
| Sheep and cattle. | 10,044 | 9,768 |
| Lambs | 1,532 | 1,967 |
| Dressed meats. | 17,342 | 18,439 |
| Poultry and game. | 242 | 411 |
| Fish | 26,428 | 27,887 |
| Oysters. | 537 | 1,053 |
| Wool. | 1,196 | 1,642 |
| Hides and leather. | 5,742 | 6,667 |
| <i>Products of Mines :</i> | | |
| Coal and coke | 1,115,937 | 1,233,870 |
| Ore | 2,401 | 5,740 |
| Sand, stone, &c. | 159,300 | 184,673 |
| Salt. | 7,058 | 8,898 |
| Slate and granite. | 3,280 | 1,548 |
| Phosphate | 11,356 | 15,351 |
| <i>Products of Forests :</i> | | |
| Lumber | 352,888 | 416,774 |
| Bark | 14,200 | 15,835 |
| Cord wood. | 52,817 | 48,751 |
| Pulp wood | 167,129 | 185,385 |
| Wood pulp | 19,249 | 39,072 |
| Shingles. | 76,480 | 78,930 |
| Other forest products. | 196,284 | 259,002 |
| <i>Manufactures :</i> | | |
| Petroleum and oils. | 26,466 | 27,537 |
| Sugar | 46,300 | 62,571 |
| Iron and steel rails. | 101,340 | 88,484 |
| Iron, pig and bloom. | 98,844 | 138,468 |
| Wire rods. | 56,024 | 91,389 |
| Steel billets. | 115,590 | 89,416 |
| Other castings and machinery | 64,427 | 75,419 |
| Bar and sheet metals. | 17,218 | 12,659 |
| Brick, lime and cement | 90,096 | 107,199 |
| Agricultural implements | 6,217 | 7,585 |
| Furniture | 5,293 | 5,825 |
| Immigrant's effects. | 1,350 | 1,821 |
| Miscellaneous. | 327,369 | 357,963 |
| Grand total. | 3,573,972 | 4,110,748 |

(Sgd.) S. L. SHANNON,
Comptroller and Treasurer.

(Sgd.) W. H. ESTANO,
Traffic Auditor.

SESSIONAL PAPER No. 20

INTERCOLONIAL RAILWAY OF CANADA.

STATEMENT OF RECEIPTS 1908-9 and 1909-10.

| Months. | Passenger Traffic. | Freight Traffic. | Mails and Sundries. | Total. |
|-----------------|-----------------------|---------------------|------------------------|--------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 1909— | | | | |
| April | 208,908 23 | 528,853 85 | 28,729 25 | 766,491 33 |
| May | 197,244 59 | 472,576 97 | 33,203 06 | 703,024 62 |
| June | 242,215 90 | 463,480 74 | 34,269 36 | 739,966 00 |
| July | 314,732 16 | 482,064 25 | 35,172 13 | 831,968 54 |
| August | 335,443 17 | 424,580 98 | 31,829 50 | 791,853 65 |
| September | 304,881 46 | 482,485 77 | 40,675 34 | 828,042 57 |
| October | 238,054 67 | 562,286 27 | 34,650 62 | 834,991 56 |
| November | 192,884 95 | 578,692 94 | 38,185 79 | 809,763 68 |
| December | 199,486 28 | 542,184 42 | 60,217 58 | 801,888 28 |
| 1910— | | | | |
| January | 169,614 98 | 450,978 28 | 33,530 24 | 654,123 50 |
| February | 141,588 50 | 466,167 89 | 30,129 70 | 637,886 09 |
| March | 220,829 77 | 594,531 82 | 52,873 58 | 868,235 17 |
| 1909-10 | 2,765,884 66 | 6,048,884 18 | 453,466 15 | 9,268,234 99 |
| 1908-9 | 2,628,218 57 | 5,502,550 58 | 396,300 31 | 8,527,069 46 |

(Sgd.) S. L. SHANNON,

(Sgd.) W. H. ESTANO,
Traffic Auditor.*Comptroller and Treasurer.*

INTERCOLONIAL RAILWAY OF CANADA.

PASSENGER STATEMENT 1908-9 and 1909-10.

| Months. | Local. | | Through. | | Total. | |
|-----------------|-----------|-------------|----------|------------|-----------|-------------|
| | Number. | Mileage. | Number. | Mileage. | Number. | Mileage. |
| 1909— | | | | | | |
| April | 220,449 | 7,341,115 | 19,251 | 4,493,912 | 239,700 | 11,835,027 |
| May | 215,388 | 7,653,839 | 17,972 | 2,925,795 | 233,360 | 10,579,634 |
| June | 236,794 | 9,757,357 | 21,779 | 3,267,586 | 258,573 | 13,024,943 |
| July | 322,238 | 14,117,761 | 25,011 | 4,088,943 | 347,249 | 18,206,704 |
| August | 323,036 | 12,202,322 | 32,637 | 6,182,175 | 355,673 | 18,384,497 |
| September | 270,422 | 10,978,376 | 27,893 | 5,701,955 | 298,315 | 16,680,331 |
| October | 226,473 | 8,096,567 | 21,528 | 3,683,460 | 248,001 | 11,780,027 |
| November | 197,433 | 6,428,113 | 17,466 | 3,268,710 | 214,899 | 9,696,823 |
| December | 232,523 | 7,993,594 | 17,524 | 3,486,280 | 250,047 | 11,479,874 |
| 1910— | | | | | | |
| January | 211,233 | 5,886,857 | 16,401 | 3,297,370 | 227,634 | 9,184,227 |
| February | 175,135 | 5,122,515 | 11,006 | 2,676,647 | 186,141 | 7,799,162 |
| March | 242,423 | 7,559,925 | 20,309 | 5,927,635 | 262,732 | 13,487,560 |
| 1909-10 | 2,873,547 | 103,138,341 | 248,777 | 49,000,468 | 3,122,324 | 152,138,809 |
| 1908-9 | 2,656,217 | 96,462,819 | 251,020 | 43,213,293 | 2,907,237 | 139,676,112 |

(Sgd.) S. L. SHANNON,

(Sgd.) W. H. ESTANO,
Traffic Auditor.*Comptroller and Treasurer.*

INTERCOLONIAL RAILWAY OF CANADA.

FREIGHT STATEMENT 1908-9 and 1909-10.

| Months. | Local. | | Through. | | Total. | |
|-----------------|-----------|-------------|----------|-------------|-----------|---------------|
| | Tons. | Mileage. | Tons. | Mileage. | Tons. | Mileage. |
| 1909— | | | | | | |
| April | 236,873 | 53,975,253 | 90,450 | 43,892,383 | 327,323 | 97,867,636 |
| May | 239,633 | 37,200,818 | 66,053 | 30,867,706 | 305,686 | 68,068,524 |
| June..... | 246,753 | 40,736,345 | 63,050 | 30,762,591 | 309,803 | 71,498,936 |
| July..... | 280,402 | 46,540,842 | 62,830 | 29,904,627 | 343,232 | 76,445,469 |
| August .. | 214,405 | 35,339,615 | 59,315 | 29,405,056 | 273,720 | 64,744,671 |
| September | 243,051 | 40,027,779 | 67,301 | 35,293,235 | 310,352 | 75,321,014 |
| Octcber | 272,107 | 49,099,724 | 85,243 | 45,233,632 | 357,350 | 94,333,356 |
| November.... | 268,595 | 45,239,989 | 107,894 | 59,171,190 | 376,489 | 104,411,179 |
| December... .. | 234,713 | 45,100,837 | 113,976 | 65,560,902 | 348,689 | 110,661,739 |
| 1910— | | | | | | |
| January .. | 224,072 | 48,575,194 | 85,787 | 46,120,534 | 309,859 | 94,695,728 |
| February..... | 225,099 | 52,442,741 | 76,754 | 41,485,502 | 301,853 | 93,928,243 |
| March | 272,939 | 67,289,927 | 89,945 | 47,727,335 | 362,884 | 115,017,262 |
| 1909-10..... | 2,958,642 | 561,569,064 | 968,598 | 505,424,693 | 3,927,240 | 1,066,993,757 |
| 1908-09..... | 2,742,454 | 525,514,718 | 831,518 | 435,775,383 | 3,573,972 | 961,290,101 |

(Sgd.) S. L. SHANNON,
Comptroller and Treasurer.

(Sgd.) W. H. ESTANO,
Traffic Auditor.

INTERCOLONIAL RAILWAY OF CANADA.

DESCRIPTIVE STATEMENT of Freight transported during the year ended March 31, 1910.

| | Number. | Tons. |
|---------------------------|-------------|-----------|
| Barrels flour | 1,608,170 | 160,817 |
| Bushels grain | 7,074,042 | 155,484 |
| Live stock..... | 106,712 | 20,633 |
| Sup. feet lumber..... | 677,805,611 | 940,091 |
| Coal and other fuel | | 1,282,621 |
| Manufactured goods..... | | 1,026,307 |
| All other articles | | 524,795 |
| Total | | 4,110,745 |

(Sgd.) S. L. SHANNON,
Comptroller and Treasurer.

(Sgd.) W. H. ESTANO,
Traffic Auditor.

SESSIONAL PAPER No. 20

INTERCOLONIAL RAILWAY OF CANADA.

STATEMENT of Coal transported during fiscal year ended March 31, 1910.

| From | FOR THE WEST. | | | For Local Stations. | Total. |
|-------------------|------------------|---------------------|------------------|---------------------------|-----------|
| | Via St. John. | Via St. Rosalie. | Via Montreal. | | |
| | Tons. | Tons. | Tons. | Tons. | Tons. |
| Stellarton..... | 166 | 42 | 60 | 393,280 | 393,548 |
| Westville.... | | | | 30,421 | 30,421 |
| New Glasgow | 1,286 | | 830 | 102,305 | 104,421 |
| North Sydney..... | | | | 43,166 | 43,166 |
| Sydney..... | | | | 7,413 | 7,413 |
| Point Tupper..... | | | | 97,421 | 97,421 |
| Maccan..... | | | | 239,813 | 239,813 |
| Norton..... | | | | 31,302 | 31,302 |
| Coal Branch..... | | | | 165 | 165 |
| Harcourt..... | | | | 6,142 | 6,142 |
| Springhill..... | | | | 51,692 | 51,692 |
| | 1,452 | 42 | 890 | 1,003,120 | 1,005,504 |

(Sgd.)

S. L. SHANNON,

Comptroller and Treasurer.

(Sgd.)

W. H. ESTANO,

Traffic Auditor.

INTERCOLONIAL RAILWAY OF CANADA.

STATEMENT showing quantity of the under-mentioned articles carried during fiscal year ended March 31, 1910.

| Articles. | Via Montreal. | Via St. Rosalie. | Via St. John. | For Local Stations. | Total. |
|------------------------------------|------------------|---------------------|------------------|---------------------------|------------------|
| | Tons. | Tons. | Tons. | Tons. | Tons. |
| Raw sugar, west bound..... | 2,000 | 309 | | 12,203 | 14,512 |
| Refined sugar, west bound..... | 9,217 | 6,402 | 1,051 | 23,224 | 39,894 |
| European freight, west bound | 6,656 | 1,651 | 9 | 43,249 | 51,565 |
| " east bound..... | 14,408 | 716 | 5,809 | 88,024 | *108,957 |
| Grain for shipment..... | Bush. 328,957 | | | | Bush. 328,957 |
| Fresh fish | Tons. 3,965 | Tons. 547 | Tons. 2,616 | Tons. 6,525 | Tons. 13,653 |
| Salt fish..... | 3,759 | 697 | 806 | 9,606 | 14,868 |
| Coal..... | 890 | 42 | 1,452 | 1,003,120 | 1,005,504 |

* Includes 64,728 tons deals.

(Sgd.)

S. L. SHANNON,

Comptroller and Treasurer.

(Sgd.)

W. H. ESTANO,

Traffic Auditor.

1 GEORGE V., A. 1911

STATEMENT of Ocean Borne Passenger business done at the Port of Halifax during
the fiscal year ending March 31, 1910.

| Name of Steamer. | NUMBER OF PASSENGERS. | | | |
|----------------------------|-----------------------|-------|-----------|--------|
| | 1st | 2nd | Steerage. | Total. |
| C. P. R. SS. Line— | | | | |
| Empress of Ireland..... | 70 | 27 | 38 | 135 |
| Empress of Britain..... | 118 | 68 | 63 | 249 |
| North West Transport Line— | | | | |
| Volturno..... | 1 | 55 | 1,615 | 1,671 |
| Uranium..... | 5 | 52 | 1,456 | 1,513 |
| Raglan Castle..... | | 16 | 410 | 426 |
| Napolitan Prince..... | | 24 | 699 | 723 |
| Sicilian Prince | | 5 | 375 | 380 |
| Campania..... | | 1 | 462 | 463 |
| Allan Line— | | | | |
| Corsican..... | 71 | 720 | 1,885 | 2,676 |
| Grampian..... | 56 | 639 | 2,337 | 3,032 |
| Virginian..... | 141 | 800 | 2,168 | 3,109 |
| Tunisian..... | 153 | 930 | 3,082 | 4,165 |
| Hesperian..... | 94 | 534 | 1,791 | 2,419 |
| Victorian..... | 167 | 751 | 2,217 | 3,135 |
| Carthaginian..... | 61 | 184 | 826 | 1,071 |
| Siberian..... | 19 | 89 | 212 | 320 |
| Mongolian..... | 60 | 119 | 289 | 468 |
| Pretorian..... | | 141 | 239 | 380 |
| Corinthian..... | | 21 | 48 | 69 |
| Numidian..... | | 125 | 295 | 420 |
| Sardinian..... | | 17 | 54 | 71 |
| Ionian..... | 59 | 410 | 667 | 1,136 |
| Pomeranian..... | | 16 | 17 | 33 |
| Sicilian..... | 3 | 14 | 205 | 222 |
| Parisian..... | | 190 | 379 | 569 |
| Dominion Line— | | | | |
| Dominion..... | | 275 | 585 | 860 |
| Canada..... | | 174 | 795 | 969 |
| Southwark..... | | 17 | 88 | 105 |
| Total..... | 1,078 | 6,414 | 23,297 | 30,789 |

(Sgd.) E. TIFFIN,
General Traffic Manager.

MONCTON, N.B.,
July 5, 1910.

SESSIONAL PAPER No. 20

STATEMENT of Ocean Borne Passenger business done at the Port of St. John during
the fiscal year ending March 31, 1910.

| Name of Steamer. | NUMBER OF PASSENGERS. | | |
|------------------------------|-----------------------|-----------------|--------|
| | 1st | Immi grants. | Total. |
| NIM | | | |
| C. P. R. Line— | | | |
| Lake Michigan | | 24 | 24 |
| Lake Manitoba | | 15 | 15 |
| Montezuma | | 30 | 30 |
| Lake Erie | | 17 | 17 |
| Montrose | | 4 | 4 |
| Lake Champlain | | 1 | 1 |
| Mount Temple | | 17 | 17 |
| Empress of Britain | | 3 | 3 |
| Empress of Ireland | | 4 | 4 |
| Montreal | | 10 | 10 |
| Canada Line — | | | |
| Prince Oscar | | 2 | 2 |
| Donaldson Line — | | | |
| Athenia | 16 | 175 | 191 |
| Cassandra | 8 | 55 | 63 |
| Salacia | | 5 | 5 |
| Kastalia | | 3 | 3 |
| Allan Line— | | | |
| Corsican | 2 | 14 | 16 |
| Tunisian | | 24 | 24 |
| Victorian | | 15 | 15 |
| Virginian | | 3 | 3 |
| Grampian | 1 | 6 | 7 |
| Hesperian | | 46 | 46 |
| Sardinian | | 27 | 27 |
| Pomeranian | | 6 | 6 |
| Total | 27 | 506 | 533 |

(Sgd.) E. TIFFIN,
General Traffic Manager.

MONCTON, N.B.,
July 5, 1910.

1 GEORGE V., A. 1911

STATEMENT of Ocean Borne Passenger business done at the Port of Quebec during the year ending March 31, 1910.

| Name of Steamer. | NUMBER OF PASSENGERS. | | |
|-------------------------|-----------------------|------|--------|
| | 1st. | 2nd. | Total. |
| Athenian..... | 1 | 32 | 33 |
| Corinthian | 1 | 13 | 14 |
| Corsican..... | 9 | 35 | 44 |
| Canada | 4 | 10 | 14 |
| Empress of Ireland... | 2 | 69 | 71 |
| Sicilian..... | 3 | 14 | 17 |
| Ionian..... | 3 | 30 | 33 |
| Pomeranian..... | 1 | 2 | 6 |
| Montreal..... | . | 25 | 25 |
| Virginian | 17 | 27 | 44 |
| Dominion..... | 8 | 3 | 11 |
| Grampian..... | 3 | 28 | 31 |
| Cassandria..... | 6 | 32 | 38 |
| Mount Temple.... | . | 20 | 20 |
| Montrose | . | 6 | 6 |
| Empress of Britain..... | 1 | 40 | 41 |
| Prince Adolbert..... | 1 | 18 | 19 |
| Laurentic | 3 | 18 | 21 |
| Victorian..... | 5 | 32 | 37 |
| Tunisian | 10 | 26 | 36 |
| Lake Manitoba..... | 1 | 10 | 11 |
| Hesperian | . | 31 | 31 |
| Mount Royal | 9 | 9 | 18 |
| Parthenian | . | 4 | 4 |
| Prince Oscar | . | 6 | 6 |
| Lake Megantic..... | . | 13 | 13 |
| Lake Erie..... | . | 3 | 3 |
| Montezuma | . | 21 | 21 |
| Pretorian..... | . | 40 | 40 |
| Sardinian.... | . | 5 | 5 |
| White Star..... | 1 | . | 1 |
| Canadian..... | . | 3 | 3 |
| Montford..... | . | 14 | 14 |
| Lake Champlain..... | . | 1 | 1 |
| Lake Michigan..... | . | 3 | 3 |
| Donaldson | . | 5 | 5 |
| Megantic..... | 3 | 7 | 10 |
| Ottawa..... | 8 | 5 | 13 |
| Lakonia | . | 1 | 1 |
| | 103 | 661 | 764 |

(Sgd.) E. TIFFIN,
General Traffic Manager.

MONCTON, N.B.,
July 5, 1910.

SESSIONAL PAPER No. 20

STATEMENT of Ocean Borne Freight traffic via Halifax for the year ending March 31, 1910.

| Line of Steamers. | Import. | Export. |
|------------------------------|---------|---------|
| | Tons. | Tons. |
| Allan Line..... | 16,877 | 5,448 |
| C.P.R..... | 99 | 158 |
| Elder Dempster..... | 1,468 | 2,190 |
| Furness..... | 14,732 | 56,122 |
| Manchester..... | 973 | 5,845 |
| N. W. Transport Co..... | 911 | ..... |
| Plant Line..... | 1,328 | 619 |
| Pickford & Black..... | 16,848 | 24,087 |
| Red Cross Line..... | 304 | 1,017 |
| Donaldson..... | ..... | 1,030 |
| Tramps—various steamers..... | 11,087 | 24,405 |
| | 64,627 | 120,921 |

(Sgd.) E. TIFFIN,
General Traffic Manager.

MONCTON, N.B.,
July 5, 1910.

STATEMENT of Ocean Borne Freight traffic via St. John, for the year ending March 31, 1910.

| Line of Steamers. | Import. | Export. |
|-----------------------------------|---------|---------|
| | Tons. | Tons. |
| Allan Line..... | 2,850 | 5,270 |
| Donaldson..... | 5,522 | 2,846 |
| Havana & Mexican Line..... | ..... | 1,273 |
| Manchester Line..... | 2,308 | 3,343 |
| South African Line..... | ..... | 2,355½ |
| C.P.R. Line..... | 3,111 | 6,608 |
| Head Line..... | ..... | 836 |
| Furness Line..... | 615 | 1,382 |
| Elder Dempster Line..... | 210 | ..... |
| Pickford & Black Line..... | 296 | ..... |
| Teodore de Laringa (steamer)..... | 6,562 | ..... |
| | 21,474 | 23,913½ |

(Sgd.) E. TIFFIN,
General Traffic Manager.

MONCTON, N.B.,
July 5, 1910.

1 GEORGE V., A. 1911
INTERCOLONIAL

STATEMENT of Casualties for the

| Date. | Time of Day. | No. of Train. | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. | Place of Accident. |
|---------|--------------|---------------|-----------------------|---------------------|-------------------------|----------------|-----------------------------------|
| 1909. | | | | | | | |
| April 1 | 20 K | Special. .... | ..... | H. Pelletier..... | J. Dean | 361 | Drummondville ... |
| " 1 | 21 K | " | Freight..... | P. H. Sirois | G. Goddard..... | 307 | St. Appollinaire. ... |
| " 6 | ... | ..... | ..... | ..... | ..... | ... | 1½ miles east Trois Saumons. |
| " 10 | 17.20 | Mixed. | Freight..... | F. A. Davidson... | Judson Wall..... | 341 | ¼ mile north Princess Lodge. |
| " 15 | 6.30 | 24 | Way Frt.... | J. L. Barnhill | A. Robbins. | 281 | 1 mile east Painsec Jct. |
| " 16 | 2.55 | 34 | Express | A. Begin..... | E. B. Price..... | 411 | ¾ mile west Caupascual. |
| " 18 | 23.50 | Special. | Freight..... | A. Delaney. | M. J. Taylor. | 315 | Adamsville. |
| " 22 | 11 K | Lig't Engine | ..... | W. A. Fitch..... | A. McLean..... | 179 | 3 miles east Leitches Creek. |
| " 22 | 9.50 | Pilot. .... | ..... | Wm. Tees..... | J. Martin..... | 91 | St. Hyacinthe |
| " 23 | 12.20 | Shunter ... | ..... | C. Poirier | C. A. Killam.. ... | 374 | Ritchie's Siding.... |
| " 24 | 7.40 | 37 | Freight..... | W. E. Fergusson . | W. E. Hunter.... | 211 | Birch Ridge..... |
| " 24 | 23 25 | 69 | Suburban... | C. D. Phillips. .. | J. Stockall.... | 141 | Fairview |
| " 28 | ... | Special. .... | ..... | V. R. Blanchard.. | F. Goddard. | 359 | 3 miles west St. Appollinaire. |
| " 30 | 21 30 | ... | ..... | ..... | ..... | ... | Truro. |
| " 30 | 15.45 | ..... | ..... | ..... | ..... | ... | Chaudiere Jct |
| May 4 | 11.30 | Shunter .... | ..... | ..... | G. Spear. | 77 | St. John Yard..... |
| " 5 | 16.30 | 153 | Express | J. Guay. | E. Ouellett..... | 408 | Chabot's Crossing . |
| " 19 | 20 30 | Shunter .... | ..... | ..... | ..... | ... | Campbellton Yd .. |
| " 22 | 20.30 | 176 | Fast Frt.... | Jas. McDonald.. | A. Stevens..... | 23 | Stellarton..... |
| " 26 | 8 40 | 25 | Express | T. Guinan.. | B. Cooke..... | 234 | ½ mile east Windsor Jct. |
| June 1 | 19.50 | Sub..... | ..... | P. Tardif..... | Oct. Halle..... | 90 | Pt. Levis Yard |
| " 29 | ... | ..... | ..... | ..... | ..... | ... | Kempt Road, Halifax. |
| July 7 | 14.55 | 64 | Suburban... | L. G. Kennedy.... | C. Coleman..... | 227 | Burton's, Halifax.. |
| " 8 | 10 14 | Sub..... | ..... | Geo. C. Johnston.. | Geo. Roberge. ... | 173 | Point Levis..... |
| " 16 | 13.25 | Special. | Passenger... | Jos. Baxter..... | Jno. H. Campbell. | 66 | ½ mile east of Trenton. |
| " 19 | 22 0' | 200 | Express | J. Rioux..... | W. J. Atkinson... | 343 | Between Villeroy & de Lotbinière. |
| " 30 | 22.00 | 75 | Freight..... | C. Couchy..... | J. Collet and E. Huott. | 308 91 | 1 mile west of Laurier. |

SESSIONAL PAPER No. 20
RAILWAY OF CANADA.

year ended March 31, 1910.

| Name of Person Injured. | Whether Passenger or Employee. | Particulars of Accident. | Extent of Injury. | Verdict. |
|---|--------------------------------|---|---|--|
| W. Lemieux | Brakeman | Hand caught between draw bar and dead wood block. | Hand injured. | |
| J. A. Pickard | " | While shunting | Right leg slightly bruised. | |
| D. Cloutier | Caretaker | Found on track | Fatal | Accidental. |
| Daniel McNevin | Passenger | Fell off train | Head injured. | |
| Jno. Camp | Neither | Found alongside of track by crew of 24 train. | Fatal | No blame attached to railway. |
| Chas. Audet | Mail Clerk | Eight cars of train left track. | Cut on face | |
| W. Morrison | Express Messenger | Mail car rolled down bank. | Heavy blow across face | |
| J. Little | Brakeman | While shunting | Side injured | |
| W. A. Fitch | Acting as conductor | Tender of engine left track and upset. | Ankle sprained | |
| Sylva Catudal | Neither | Attempting to cross track between cars. | Left arm and foot crushed; died. | No blame attached to railway or employees. |
| N. Desrosiers | Brakeman | While shunting | Foot badly hurt. | |
| C. Leahy | " | While unloading piece of machinery. | Finger crushed | |
| Wm. Gorman | Passenger | Attempting to get off car before it stopped, tripped and fell. | Right hand scratched. | |
| Louis Jacques | Sectionman | Struck by train | Head injured | |
| A. Griffin | Frt. porter | While handling freight truck slipped and he fell backwards. | Foot badly injured. | |
| Alfred Couture | Car repairer | While coupling hose between cars. | Injured about stomach. | |
| A. Mowery | Shunter | Being caught while uncoupling cars. | Back injured | |
| Jos Therien | Neither | Struck by train while walking on track. | Slightly injured | |
| Chas. Cormier | Brakeman | While shunting | Ankle sprained | |
| A. M. Fraser | Fireman | While getting off engine fell and was caught by oil box and dragged some distance. | Badly injured | |
| Sydney Shaffleburg | Sectionman | While standing on track was struck by train. | Fatal | Accidental. |
| Jos Anctil | Brakeman (not on duty.) | While attempting to get on foot board of tender fell and wheels of tender passed over his body. | " | " |
| Wm. Ingram | Neither | Fell while playing on wall at new round house. | " | " |
| Murphy boy, 8 or 9 yrs. old. | " | Run over by train | Badly cut about head, right leg almost severed above ankle. | |
| A. Simard | " | Struck by train while walking on track. | Back hip and left leg injured. | |
| Fred Donlan, Miss Sadie Murray, Mrs. Gordon. | Passengers | Car left track | Fracture of skull. Arm bruised. Shoulder slightly bruised. | |
| Jos. Ginois | Fireman | While shaking grates shaker gear broke injuring hand. | Finger of left hand injured. | |
| Peter Ryan, Jno. Doran, Pat. Cronin, Wm. Fairbrother. | Neither | Were stealing ride in box car when a wheel of car containing billets broke derailing car. | Badly injured | |

1 GEORGE V., A. 1911
INTERCOLONIAL

STATEMENT of Casualties for the

| Date. | Time of Day. | No. of Train. | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. | Place of Accident. |
|---------|--------------|-----------------|-----------------------|--------------------|-----------------|----------------|----------------------------------|
| 1909. | | | | | | | |
| Aug. 7 | 24 20 | 301 | Express | A. E. Logan | Wm. Matthews | 109 | Loggieville |
| " 10 | 18.10 | Spel | | J. B. LeBel | A. Chenard | 212 | Riv. du Loup Yard. |
| " 12 | 12 K | 5 | Freight | J. S. Nickerson | R. Linden | 290 | Sussex |
| " 14 | 10.07 | 83 | Express | J. Coffey | R. Bulwer | 155 | 1 mile east Buc-touche Crossing. |
| " 19 | 12.45 | Pilot | Freight | A. St. Pierre | N. Houston | 35 | miles west St. Leonard Jct. |
| " 20 | 1 50 | Spel | | W. Brownrigg | J. Shaw | 366 | Truro |
| " 27 | 20 15 | | | | | | " |
| " 28 | 17.49 | 34 | Express | O. Desjardins | E. Parsons | 407 | St. Alexandre |
| " 30 | 17.55 | 200 | " | Geo. Nixon | J. Donald | 338 | Thomson |
| Sept. 7 | | | | | | | 1 mile west Sackville |
| " 7 | 5 10 | Freight | Special | A. Laliberte | D. Cote | 392 | St. Lambert |
| " 13 | 22.30 | Excursion Pass. | | Jno. McLeod | Jno. McEachern | 395 | Amherst |
| " 20 | | | | | | | Near St. Joseph sta. |
| " 21 | 21 50 | Special | | H. Pelletier | H. Gingras | 307 | Ste. Rosalie |
| " 23 | 17 40 | Special | | J. F. Kelly | A. Probert | 21 | Hopewell |
| Oct. 6 | 2.38 | Special Exp. | Freight Pass | J. H. Thomson | R. J. Whalen | 88 | 300 yards West Nashes Creek Stn. |
| " 6 | 2.38 | " | " | A. McLellan | John Morton | 333 | " |
| " 6 | 2.38 | " | " | " | " | 333 | " |
| " 6 | 2.38 | " | " | " | " | 333 | " |
| " 6 | 2.38 | " | " | " | " | 333 | " |
| " 6 | 2.38 | " | " | " | " | 333 | " |
| " 6 | 2.38 | " | " | " | " | 333 | " |
| " 6 | 2.38 | " | " | " | " | 333 | " |
| " 6 | 2.38 | " | " | " | " | 333 | " |
| " 6 | 16.40 | Special | | A. Gauvreau | E. Roy | | Drummondville |
| " 8 | 21.20 | Shunter | | | F. McBeath | 52 | Moncton Yd. |
| " 12 | | 26 | Express | W. McClafferty | W. J. Hunter | 341 | 2 miles North Truro |
| " 15 | 1.00 | Special | | F. A. Fowlie | J. Gozley | 275 | Windsor Jct. |
| " 20 | 6 20 | 33 | Express | E. Camire | A. Matthews | 411 | Skin Cut Snow Shed |
| " 21 | 13 00 | Shunter | | Nap. Levesque | Geo. Lutes | 369 | Cedar Hall |
| " 30 | 23.00 | | | | | | Pt. du Chene |
| Nov. 1 | 22.30 | Shunter | | | W. McDonald | 349 | Sydney Yd |

SESSIONAL PAPER No. 20

RAILWAY OF CANADA.

year ended March 31, 1910—*Continued.*

| Name of Person Injured. | Whether Passenger or Employee. | Particulars of Accident. | Extent of Injury. | Verdict. |
|---------------------------|-------------------------------------|---|--------------------------------|---|
| Jno. Sims | Baggagemaster | His jumper caught on bolt while coupling cars. | Badly injured | |
| Sam Boucher | Brakeman | Struck by engine | Slightly injured . . . | |
| Roy L. Welling | " | While unloading freight truck fell on his foot. | Foot slightly injured. | |
| Alex. H. Steeves | Neither | Walking on track struck by train. | Died in the hospital, Moncton. | |
| Antoine Martin | " | Walking on track struck by train. | Died from injuries received. | Accidental. |
| Chas. True | Employee of Norris & Rowe's Circus. | He was sleeping in car which went off track. | Shoulder dislocated. | |
| G. L. Miller | Frt. porter | Struck his head against car door while unloading mails. | Cut above and below eye. | |
| Jos. Dufour | Neither | Attempting to board train while under influence of liquor. | One leg cut off | |
| Mrs. E. Mattison | " | While standing on crossing struck by train. | Fatal | " |
| Abel Carter | Neither | Found dead on track, supposed to have been struck by some train during night. | Fatal | Accidental. |
| Rosario Legare | Brakeman | Foot caught between rail and car coupling cars. | Right foot badly crushed. | |
| George Ayer | Passenger | Fell or jumped from train . . . | Head and Face injured. | |
| Victor Chatignay | Fireman | Found dead alongside of track | Fatal | No blame |
| O. Sirois | Brakeman | Foot caught between guard rail and switch while getting off train. | Injured | attached Ry. or Emp |
| Arthur Murray | " | While coupling cars | Thumb badly smashed. | |
| R. J. Whalen | Engineman | Thompson's special collided with No. 33 Express train. | Fatal | Fault of Con. Thompson and Driver Whalen. |
| J. Morton | " | " | " | |
| W. S. Morrison | Exp. Messenger | " | " | |
| Wm. Cook | Fireman | " | Badly injured | |
| A. J. Jessulate | Brakeman | " | Right leg badly injured. | |
| J. A. Murray | " | " | Shoulder dislocated. | |
| D. O'Sullivan | Mail Clerk | " | Left arm broken . . . | |
| W. P. Starratt | " | " | Slightly injured . . . | |
| Thos. Keith | " | " | " | |
| J. H. Thompson | Conductor | " | " | |
| Wilfrid Blais | Neither | While walking on track struck by train. | " | |
| A. A. Embree | Brakeman | Attempting to shove coupler with his foot. | Foot badly jammed. | |
| Jas. A. McCuish | Passenger | Jumped through window 2nd class car. | Slightly injured . . . | |
| Henry Gratta | Em. on Steam shovel | Found body on track cut in two | Fatal | Accidental. |
| M. D. Mullins | Waiter | No. 33 run into No. 75 Mullins knocked down by jar. | Rib broken | |
| Aug. Gagnon | Brakeman | Foot caught in hole of flat car. | Foot slightly injured. | |
| Wm. McGrath | Cleaner | Caught foot in turntable while turning engine. | Foot smashed | |
| Jno. McPhee | Brakeman | Squeezed between platform and car. | Bruised about body. | |

1 GEORGE V., A. 1911
INTERCOLONIAL

STATEMENT of Casualties for the

| Date. | Time of Day. | No. of Train | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. | Place of Accident. |
|-------|--------------------|--------------|-----------------------------|--------------------------|-----------------|----------------|--|
| 1909. | | | | | | | |
| Nov. | 4 19 00 | 84 | Express | J. Coffey | R. Bulwer | | Halls Creek Bridge near Moncton. |
| " | 4 | Special. | | O'Brien | R. D. McDonald | 229 | Woodburn |
| " | 6 5.15 | 133 | Express | J. B. Crockett | Geo. Storey | 99 | Pt. du Chene |
| " | 10 5.25 | 33 | " | A. Begin | W. Duncan | 406 | 1 mile East Parades Siding. |
| " | 12 18.35 | Shunter | | | H. Maisey | 350 | Campbellton |
| " | 20 | | | | | | Nicolet |
| Dec. | 1 10.25 | 145 | Express | J. Dowden | R. Jameson | 2 | Guy St., Montreal. |
| " | 5 16.30 | Special. | Freight | S. G. Nickerson | W. Ingram | 103 | Cannan |
| " | 13 22.45 | 26 | Express | A. E. Brown | J. Ross | | Short distance west of North St. stn. |
| " | 17 16.20 | 23 | Freight | I. L. Barnhill | L. King | 277 | Amherest |
| " | 17 24 00 | Shunter | | J. Jackson | P. McInnes | 405 | D. W. T. Halifax |
| " | 18 16.50 | 37 | Freight | W. F. Fergusson | F. Henry | 395 | Beaver Brook near St. Francois stn. |
| " | 26 10.20 | Special | | H. LeBel | Geo. Cote | 320 | St. Anne |
| 1910. | | | | | | | |
| Jan. | 4 12.20 | 42 | Freight | A. Gamache | D. C. Gallan | 351 | Cedar Hall |
| " | 7 16.00 | 41 | " | | R. Baird | 264 | Ste. Flavie Yard |
| " | 10 17.30 | Shunter | | | R. H. Fillimore | 287 | Stellarton Yard |
| " | 17 | | | | | | |
| " | 19 6.40 | | | | A. Probert | 199 | Near Lourdes |
| " | 22 4.50 | 148 | Express | A. Freshetto | Geo. Cloutier | 74 | St. Lambert |
| " | 27 10.00 | | | | | | Truro |
| " | 29 15.05 | 23 | Freight | J. W. Coles | W. Gross | 279 | Amherst |
| Feb. | 8 20.25 | 151 | Express | A. Legace | G. Findlay | 102 | 2 1/2 miles west St. Eugene. |
| " | 19 19.30 | Special | | J. Cremer | J. Martin | 7 | Chatham |
| " | 21 14K | Shunter | | | Ed. Kean | 403 | Ste. Flavie Yard |
| " | 28 1.40 | Special | Freight | H. A. Baker | D. McLeod | 309 | Hill Siding near Folleigh. |
| Mar. | 5 16.35 | Shunter | | | G. Roberge | 197 | Levis Yard |

SESSIONAL PAPER No. 20
RAILWAY OF CANADA.

year ended March 31, 1910—*Continued.*

| Name of Person Injured. | Whether Passenger or Employees. | Particulars of Accident. | Extent of Injury. | Verdict. |
|-------------------------|---------------------------------|---|---|---|
| Ed. Donaghan | Neither..... | Struck by train while walking on track. | Died in Moncton Hospital. | No Inquest. |
| A. B. Gray..... | Trackmaster..... | Fell from car of ties | Four ribs broken | |
| Geo. Mills | Brakeman | Caught between switch stand and cars while shunting. | Right arm and side badly injured. | |
| Miss N. Kinnear.... | Passenger | Train left track..... | Ear slightly injured. | |
| C. B. Jones | Porter | " | Head slightly injured. | |
| Henry Gunter | Neither..... | Struck by train while crossing track. | Fatal | " |
| Fillion | Fireman | Slipped on ice and fell off turn-table. | Two ribs forced out of place. | |
| Amedee Cherrier.... | G.T.R. Sectionman.. | While standing on platform of car train collided with car on main line. | Badly injured. | |
| S. G. Nickerson.... | Conductor..... | When train parted car stopped quickly throwing him against end of car. | Badly injured. | |
| Mrs. K. Carroll..... | Passenger | Found on track | One leg below knee and foot cut off died in Hospital Halifax. | " |
| Lula Barrett..... | Neither..... | Crossing track beneath cars.. | Fatal | Accidental. |
| W. Fabie..... | Brakeman | While coupling cars..... | Badly injured. | |
| W. F. Fergusson.... | Conductor..... | Hand caught in door..... | One finger smashed | |
| Elz. Villeaux..... | Neither..... | Found dead on track..... | Fatal | Accidental. |
| H. M. Canfield..... | Passenger | No. 33 train collided with Special. | Slightly injured... | |
| Miss A. Poirier.... | " | " | " | |
| Jos. Williams.. | " | " | " | |
| Mrs. J. Shute. | " | " | " | |
| David Tokes.. | " | " | " | |
| Chas. Soloman | " | " | " | |
| I. Bircovitch.. | News Agent..... | " | " | |
| E. Patson..... | Second Cook..... | " | " | |
| D. C. Gallan | Engineer..... | While cleaning fire. | First finger of left hand badly smashed. | |
| A. Rioux. | Yardman | While coupling cars..... | Fatally injured, died next morning. | Accidental. |
| John W. McIntosh.. | Brakeman | While standing on foot board of Engine 287 which collided with Engine 85. | Fatal | " |
| Aug. Pouliot..... | Engineman | Struck by shunting engine. .. | Slightly injured... | |
| Jos. Campbell..... | Sectionman | Walking on track | Badly injured.... | |
| Jos. Frechette..... | Brakeman | While shunting slipped and fell. | Three fingers of left hand smashed. | |
| Geo. Laird..... | Car Inspector..... | While uncoupling air brakes head caught between cars. | Badly injured. | |
| J. A. Stronach.... | Brakeman | Fell from ladder of box car... | Arm broken | |
| M. Lachapelle | Neither..... | While driving on track struck by train. | Slightly injured... | |
| W. Whalen..... | Brakeman | While coupling cars | Thumb jammed... | |
| Dumas Cloveau | Sectionman..... | Struck by engine while walking track. | Slightly injured... | |
| D. McLeod | Engineman..... | Engine and six cars went over bank. | Fatal | Breaking of tire of right hand driving wheel. |
| John McIsaac.... | Fireman | " | " | |
| J. O. Davidson..... | Brakeman | " | " | |
| A. Martin..... | Yardman..... | While coupling cars..... | Badly injured..... | |

1 GEORGE V., A. 1911

INTERCOLONIAL

STATEMENT of Casualties for the

| Date. | Time of Day. | No. of Train | Description of Train. | Name of Conductor. | Name of Driver. | No. of Engine. | Place of Accident. |
|--------------|--------------|--------------|-----------------------------|--------------------------|-----------------|----------------|----------------------------|
| 1910. | | | | | | | |
| Mar. 7 . . . | | Shunter.... | . . . . . | . . . . . | . . . . . |  | Ste. Flavie.... |
| " 11 18.30 | | 376 | Sub..... | W. Long | N. Ivroy..... | 330 | Fredericton Station |
| " 12 24.15 | | Special..... | Freight..... | F. Dixon | W. Rushton..... | 297 3 | miles west Belle- dune. |
| " 31 . . . | | | | | | | St. Hyacinthe |

SESSIONAL PAPER No. 20

RAILWAY OF CANADA.

year ended March 31, 1910—*Continued.*

| Name of Person Injured. | Whether Passenger or Employee. | Particulars of Accident. | Extent of Injury. | Trains. |
|-------------------------|--------------------------------|---|--|-------------|
| A. Dumont... .. | Yardman... .. | While shunting | Second finger of right hand jammed. | |
| W. Burdon... .. | Brakeman | Fell from train wheels passing over right hand. | Hand badly crushed. | |
| Robert Geedart... .. | " | Engine parted from train and Geedart trying to couple same got caught between couplers at hips. | Seriously injured, died later in Moncton Hospital. | Accidental. |
| O. Dion... .. | " | While unloading freight.. .. | Thumb crushed... | |

1 GEORGE V., A. 1911

WINDSOR BRANCH RAILWAY.

OFFICE OF THE ENGINEER OF MAINTENANCE.

To the Canadian Government Railways Managing Board,
Moncton, N.B.

GENTLEMEN,—I beg leave to submit the following annual report for the maintenance of the Windsor Branch for the year ending March 31, 1910.

TRACK.

During the year 43,320 feet of 4-inch and 4½-inch rails were taken out of the track and the same quantity of 4½-inch rails relaid.

TIES.

Ten thousand five hundred and forty-four ordinary ties and 1 set of switch ties were renewed during the year.

BALLASTING.

During the year 140 cubic yards of ashes were put under the track.

SWITCHES AND SEMAPHORES.

Necessary repairs were made to all switches and semaphores.

FENCING.

During the year 2,000 rods of wire fence was built by contract.
Necessary repairs were made to existing fences throughout the branch.

WHARFS AND TRESTLES.

Repairs.

Necessary repairs were made to wharfs and trestles throughout the line.

BRIDGES AND CULVERTS.

Repairs.

Beaver Bank, bridge; Ellershous, bridge; Ellershous, culvert; Fletcher's, bridge; Pidgeon's, bridge; Three-Mile Plains, bridge.

BUILDINGS AND PLATFORMS.

Repairs.

Beaver Bank, station; Beaver Bank, platform; Ellershous, station; Hartville, platform; Mount Uniacke, station; Mount Uniacke, freight shed; Newport, station; South Uniacke, platform; Windsor, station; Windsor, platform; Windsor, engine house; Windsor, tool house; Windsor, freight shed.

SESSIONAL PAPER No. 20

GENERAL.

Necessary repairs were made to cattle-guards, road crossings and gates throughout the line, where required.

Glazing was done and glass put in where required.

Outhouses and approaches to public road crossings were whitewashed.

Semaphores, switches and signals were painted when required.

Necessary repairs were made to trollies, hand cars, wheel-barrows, &c., throughout the line, when required.

The track on the Windsor Branch, with the bridges and structures, have been kept in good repair and I think were never in better condition.

I am, yours faithfully,

(Sgd.) T. C. BURPEE,

MONCTON, N.B.,

March 31, 1910.

WINDSOR BRANCH RAILWAY.

REVENUE ACCOUNT year ended March 31, 1910.

| Expenditure. | \$ cts. | Earnings. | \$ cts. |
|--|-----------|-------------------------|-----------|
| Maintenance of way and structures..... | 23,549 90 | Passenger earnings..... | 15,696 16 |
| Balance..... | 37,104 08 | Freight earnings..... | 43,805 98 |
| | | Mail earnings..... | 1,151 84 |
| | 60,653 98 | | 60,653 98 |

E. & O. E.,

MONCTON, N.B.

(Sgd.)

S. L. SHANNON,

Comptroller.

1 GEORGE V., A. 1911

WINDSOR BRANCH RAILWAY.

MAINTENANCE of Way and Structures, year ended March 31, 1910.

| | \$ | cts. |
|--|--------|------|
| Superintendence | 2,094 | 79 |
| Ballast | 66 | 50 |
| Ties | 3,859 | 02 |
| Rails | 2,748 | 42 |
| Other track material | 1,500 | 17 |
| Roadway and track | 9,395 | 12 |
| Removal of snow, sand and ice | 427 | 14 |
| Bridges, trestles and culverts | 643 | 97 |
| Grade crossings, fences, cattle guards and signs | 1,899 | 10 |
| Signals and interlocking plants | 7 | 88 |
| Buildings, fixtures and grounds | 594 | 95 |
| Docks and wharfs | 12 | 75 |
| Roadway tools and supplies | 135 | 31 |
| Stationery and printing | 40 | 27 |
| Other expenses | 124 | 51 |
| | 23,549 | 90 |

E. & O. E.,
MONCTON, N.B.

(Sgd.) S. L. SHANNON,
Comptroller.

WINDSOR BRANCH RAILWAY.

GENERAL BALANCE, year ended March 31, 1910.

| Dr. | \$ | cts. | Cr. | \$ | cts. |
|--------------------------------|-------|------|-------------------------------|-------|------|
| To Stores Department | 4,311 | 35 | By Dominion account | 4,311 | 35 |

E. & O. E.,
MONCTON, N.B.

(Sgd.) S. L. SHANNON,
Comptroller.

SESSIONAL PAPER No. 20

WINDSOR BRANCH RAILWAY.

STATEMENT of Monthly Receipts—One-third Earnings.

| Month. | Passenger Earnings | Freight Earnings. | Mail Earnings. | Totals. |
|---------------------|-----------------------|----------------------|-------------------|-------------|
| 1909. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| April | 960 47 | 3,244 39 | 95 68 | 4,300 54 |
| May | 932 36 | 2,674 21 | 95 68 | 3,702 25 |
| June | 1,392 07 | 2,228 76 | 95 68 | 3,716 51 |
| July | 1,777 56 | 2,263 53 | 95 68 | 4,136 77 |
| August | 1,992 13 | 1,624 46 | 96 91 | 3,713 50 |
| September | 2,605 57 | 4,579 91 | 98 13 | 7,283 61 |
| October | 1,581 29 | 5,546 10 | 96 90 | 7,224 29 |
| November | 981 01 | 6,104 65 | 96 91 | 7,182 57 |
| December | 1,161 21 | 3,989 98 | 96 91 | 5,248 10 |
| 1910. | | | | |
| January | 663 44 | 4,473 17 | 94 46 | 5,231 07 |
| February | 701 40 | 3,385 79 | 94 45 | 4,181 64 |
| March | 947 65 | 3,691 03 | 94 45 | 4,733 13 |
| | \$15,696 16 | \$43,805 98 | 1,151 84 | \$60,653 98 |

E. & O. E.,
MONCTON, N.B.

(Sgd.) S. L. SHANNON,
Comptroller.

PRINCE EDWARD ISLAND RAILWAY.

SUPERINTENDENT'S OFFICE,

CHARLOTTETOWN, P.E.I., May 31, 1910.

SIR,—I have the honour to submit the following report of the working of the Prince Edward Island Railway, for the fiscal year ended March 31, 1910.

I also inclose the report of the mechanical superintendent, and the following statements prepared by the accountant and auditor, and the mechanical accountant and storekeeper:—

- No. 1. Capital.
2. Revenue.
3. Maintenance of way and structures.
4. Maintenance of equipment.
5. Traffic expenses.
6. Transportation expenses.
7. General expenses.
8. General stores.
9. General balance.
10. Statement of averages.
 - Statement of receipts.
 - Passenger statement.
 - Freight statement.
 - Descriptive statement of freight transported.

1 GEORGE V., A. 1911

- A. Statement showing the number of locomotives and the various classes of cars.
- B. Statement showing the mileage made, and the coal, oil and waste consumed by locomotives.

The mileage of the railway in operation during the year was the same as last year, 267.5 miles.

CAPITAL ACCOUNT.

| | |
|--|------------------------------|
| The expenditure to March 31, 1909, was.. . . . | \$8,258,967 94 |
| The additions during the year were as follows:— | |
| To increase accommodation at Charlottetown.. . . . | \$156,531 57 |
| Branch line, Harmony to Elmira.. . . . | 49,829 25 |
| Montague Branch.. . . . | 36 15 |
| | <u>206,396 97</u> |
| Making the total on March 31, 1910.. . . . | <u><u>\$8,465,364 91</u></u> |

The above expenditures under the head of capital account, for the current year, will be fully explained by the chief engineer.

REVENUE ACCOUNT.

There has been a very substantial increase in revenue during the year. The crops were exceptionally good, and prices ranged high, and the province has experienced a continuance of prosperity.

The gross earnings and working expenses for the year compare as follows:—

| | |
|--------------------------|-----------------------------|
| Gross earnings.. . . . | \$ 319,074 74 |
| Working expenses.. . . . | 427,283 73 |
| | <u>Difference.. . . .</u> |
| | <u><u>\$ 108,208 99</u></u> |

The gross earnings compare with the previous year, as follows:—

| | |
|-------------------|---------------------------|
| In 1908-9.. . . . | \$ 311,319 63 |
| 1909-10.. . . . | 319,074 74 |
| | <u>Increase.. . . .</u> |
| | <u><u>\$ 7,755 11</u></u> |

The earnings from passenger traffic compare, as follows:—

| | |
|-------------------|---------------------------|
| In 1908-9.. . . . | \$ 136,534 04 |
| 1909-10.. . . . | 140,076 83 |
| | <u>Increase.. . . .</u> |
| | <u><u>\$ 3,542 79</u></u> |

The earnings from freight traffic compare, as follows:—

| | |
|-------------------|---------------------------|
| In 1908-9.. . . . | \$ 149,150 61 |
| 1909-10.. . . . | 153,373 11 |
| | <u>Increase.. . . .</u> |
| | <u><u>\$ 4,222 50</u></u> |

SESSIONAL PAPER No. 20

The earnings from mails and sundries compare as follows:—

| | |
|---------------------|--------------|
| In 1908-9.. | \$ 25,634 98 |
| 1909-10.. | 25,624 80 |
| Decrease.. | 10 18 |

The numbers of passengers carried compare as follows:—

| | |
|---------------------|---------|
| | Number. |
| In 1908-9.. | 332,758 |
| 1909-10.. | 351,038 |
| Increase.. | 18,280 |

The weight of freight compares as follows:—

| | |
|---------------------|---------|
| | Tons. |
| In 1908-9.. | 106,090 |
| 1909-10.. | 105,741 |
| Decrease.. | 349 |

WORKING EXPENSES.

The working expenses compare with the previous year, as follows:—

| | |
|---------------------|--------------|
| In 1908-9.. | 400,330 41 |
| 1909-10.. | 427,283 73 |
| Increase.. | \$ 16,953 32 |

The averages compare with the previous year, as follows:—

Per Mile Run by Locomotive.

| | |
|---------------------|----------|
| In 1908-9.. | \$ 88 46 |
| 1909-10.. | 96 05 |

Per Mile Run by Trains.

| | |
|---------------------|--------|
| In 1908-9.. | 119 51 |
| 1909-10.. | 132 07 |

Expenditure per Mile of Railway.

| | |
|---------------------|----------|
| In 1908-9.. | 1,499 36 |
| 1909-10.. | 1,600 31 |

TRACK.

Twenty-seven thousand five hundred and eighty-one track ties, 18 sets switch ties, and 26 head-blocks and frames were renewed.

Four Burpee switch-stands were placed in Charlottetown yard, and 3 on main line.

Fifty pound steel rails were laid as follows to replace iron rails:—2,115 feet in Tignish yard, 1,176 feet on Alberton wharf track, 3,360 feet in Georgetown yard, and 1,672 feet in Souris yard. In Charlottetown yard 4,900 feet track was laid with 56-lb.

1 GEORGE V., A. 1911

steel rails to replace iron rails, and on the main line of the Vernon River loop 2,750 feet 50-lb. rails were laid to replace 56-lb. steel rails, which were in bad order. On the main line between Royalty Junction and Kensington 1,100 tons of 58-lb. steel rails, with bolts and fastenings, were laid, replacing 50-lb. steel rails. Twelve new steel frogs were used on the road to replace worn out and lighter ones, which were taken out.

A new track scale with concrete foundation was placed in Charlottetown yard, and a second-hand track scale with timber foundation in Georgetown yard.

A new Ellis bumping post was placed on end of track on Souris wharf, and two on end of tracks on Charlottetown wharf.

Twelve hand cars were repaired. Seven new track levels and 4 lifting boards were made.

SIDINGS.

At Tignish a new siding, 396 feet in length, was laid with 50-lb. steel rails, for a plough and flanger.

At St. Louis 950 feet of 50-lb. steel rails were laid on siding to replace iron rails, and siding was extended 100 feet.

At Alberton 1,000 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At O'Leary 1,032 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Portage 1,540 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Ellerslide 508 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Northam 800 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Richmond 750 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Kensington 2,928 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Kelvin 384 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Emerald 400 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Kinkora 800 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Albany 750 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Bradalbane 1,790 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Elliott's 1,251 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Hunter River 1,250 feet of 50-lb. steel rails were laid on siding to replace iron rails. The through siding was extended 180 feet, and Full's siding 70 feet, and both relaid with 50-lb. steel rails.

At North Wiltshire 600 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Milton 500 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Winsloe 300 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At York 1,600 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Bedford 1,296 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Mt. Stewart 1,455 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Morell 1,200 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Marie the siding was extended 400 feet. In replacing iron rails taken out, and extending siding, 1,152 feet of 50-lb. steel rails were used.

At St. Peter's 642 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Selkirk 800 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Bear River 984 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Peake's 450 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At St. Teresa 500 feet of 50-lb. steel rails were laid on siding to replace iron rails.

At Kitchen's Siding 264 feet of 50-lb. steel rails were used in extending it.

SESSIONAL PAPER No. 20

FENCING.

Thirty-one thousand one hundred and seventy feet wire fence were rebuilt with new cedar posts and Page wire. Seven thousand two hundred and eighty-eight feet new stationary snow fence was built. Two thousand one hundred and seventy-five feet stationary snow fence and 575 feet barbed wire fence were rebuilt. Three hundred and ninety-four panels of portable snow fence were built by road carpenters, and placed where most needed. A large quantity of temporary snow fence was erected with brush and wire.

Fifty farm gates were renewed.

All fences requiring repairs were attended to.

BALLASTING.

Seven hundred and eighty-three cars of ballast were distributed where most needed. Three hundred and fifty-seven cars of clay were used to grade station grounds and widen embankments. Forty-two cars ashes were distributed in wet and soft places in the track.

BRIDGES.

At West Devon, Ellerslide and St. Nicholas bridges received new coverings of hard pine ties.

At Mt. Stewart iron work of bridge was painted.

At Morell repairs were made to rest pier of swing span of the bridge.

At Marie stonework of bridge was pointed and ironwork painted.

At Midgell stonework of bridge was pointed and iron and woodwork painted.

At Pine Brook stonework of bridge was pointed.

CULVERTS.

At Bloomfield a new timber culvert was built to change the water course at this place.

At O'Leary a concrete pipe culvert, 40 feet long, 18 inches in diameter, was put in to replace a wooden one.

At Coleman a concrete pipe culvert, 20 feet long, 15 inches in diameter, was put in to replace a wooden one.

At Northam a concrete pipe culvert, 35 feet long, 18 inches in diameter, was put in to replace a wooden one.

At Richmond a concrete pipe culvert, 40 feet long, 18 inches in diameter, was put in to replace a wooden one.

At Summerside a concrete pipe culvert, 28 feet long, 18 inches in diameter, was put in to replace a wooden one.

At Mt. Stewart a concrete pipe culvert, 16 feet long, 15 inches in diameter, and an iron culvert, 36 feet long, 12 inches in diameter, was put in to replace wooden culverts.

At St. Peter's an iron pipe culvert, 48 feet long, 12 inches in diameter, and a concrete pipe culvert, 25 feet long, 18 inches in diameter, were put in to replace wooden culverts.

At Georgetown a concrete pipe culvert, 18 feet long 30 inches in diameter, was put in to replace a wooden culvert, and two concrete culverts, 30 feet long, 18 inches in diameter, were constructed to replace two wooden culverts.

At St. Teresa two concrete pipe culverts, 17½ feet long, 18 inches in diameter, were put in to replace two wooden ones.

1 GEORGE V., A. 1911

Twenty-eight wooden culverts were rebuilt with hemlock and other timber, and stone culverts repaired where necessary.

Eighty-five cattle-guards were renewed with hemlock ties, hard pine and hemlock timber.

WHARFS AND BREASTWORKS.

At Summerside the following material was used in repairing wharf: 50,000 feet hemlock timber, 3,000 feet hemlock plank and 300 drift bolts. In repairing breastwork, 30,000 feet hemlock timber and 200 drift bolts were used.

At Souris, in building a slip, 2,000 feet hemlock plank and 100 drift bolts were used.

At Georgetown the following material was used in building a slip for the *Earl Grey*: 5,000 feet hemlock timber, 2,000 feet spruce plank, 2,000 feet hemlock plank and 300 drift bolts.

At Marie, 50 feet of breastwork was built with old ties and timber.

BUILDINGS AND PLATFORMS.

Tignish.—Engine-house, freight-house and flues in agent's dwelling were repaired. Four coal boxes were rebuilt.

DeBlois.—Station was repaired.

St. Louis.—Station was repaired and a new ticket office built. A new cattle pen was erected.

Alberton.—Agent's dwelling was raised and a new foundation placed under it, and repairs made to the interior, which was also papered and painted. Roof of dwelling was shingled.

Howlan.—A new station platform was made.

O'Leary.—Station platform and section tool-house were rebuilt. Agent's dwelling was papered and painted inside.

West Devon.—The door and windows of station were repaired.

Portage.—The station windows were repaired.

McNeill's.—The station windows were repaired.

Ellerslie.—Section tool-house was rebuilt.

St. Nicholas.—Station doors and windows were repaired.

Piusville.—Windows of station were repaired.

Summerside.—Station was repaired and baggage-room received a new gravel roof. Freight-house on wharf was raised and repaired.

Freetown.—Three new storm windows were made for station.

Emerald.—The station platform was renewed.

Cape Traverse.—Station platform was repaired. Kitchen of agent's dwelling and one room were sheathed.

Bradalbane.—Station roof was repaired with gravel and pitch. Agent's dwelling was papered and painted inside.

Clyde.—Exterior of station was painted.

Hunter River.—Station platform was repaired. Station received a new gutter and was repaired.

North Wiltshire.—Station platform and doors and windows of station were repaired.

Colville.—Station received new doors and windows.

Milton.—New doors and windows were provided for station.

Royalty Junction.—Two small houses were converted into one building for agent's dwelling, which necessitated considerable labour, as one building was moved and a new foundation placed under both. Dwelling was also papered, and both the interior and exterior painted.

SESSIONAL PAPER No. 20

Bedford.—Four new storm windows were provided for station, and necessary repairs made to station. A new floor was laid in the office.

York.—Station windows and doors were repaired.

Mt. Stewart.—The interior of agent's dwelling was papered and painted. Station platform was repaired.

Lot 40.—The station was painted outside.

Morell.—Station and platform were repaired. The interior of agent's dwelling was painted and papered.

Union.—Station platform was renewed.

St. Peter's.—A new section tool-house was built, and station platform repaired.

Selkirk.—Section-house roof was shingled.

Bear River.—Agent's dwelling was painted and the ceilings whitened. Station platform was renewed.

Souris.—Station received repairs and a new crown moulding, and the exterior was painted. A new gravel roof was placed on baggage-room. Station roof was shingled. A new well-house was provided for the agent. Agent's dwelling was papered and painted inside. A new set of scales was placed in freight-house.

Peakes.—A new door was provided for freight-house, and repairs made to doors and windows of station.

48 Road.—Station roof was shingled.

Cardigan.—Station was repaired.

Georgetown.—Engine-house was repaired, and the roof shingled. Warehouse on wharf was raised and placed on a new foundation.

Murray Harbour.—Doors and windows of engine-house were repaired. All other buildings requiring repairs were attended to.

STORES.

| | |
|--|--------------|
| The value of stores purchased was.. . . . | \$150,719 57 |
| The value of stores used was.. . . . | 181,020 08 |
| The value of material sold was.. . . . | 2,623 82 |
| The value of stores on hand at the end of the year was:— | |
| Miscellaneous.. . . . | \$ 31,948 74 |
| Fuel.. . . . | 12,155 77 |
| Roadway and bridge material.. . . . | 15,201 67 |
| | <hr/> |
| | \$59,306 18 |

GENERAL.

The rolling stock, roadbed and buildings have all received generous attention, and are in a state of efficiency.

I inclose a return of casualties which occurred during the year.

I have the honour to be, sir,

Your obedient servant,

(Sgd.) G. A. SHARP,

Superintendent.

D. POTTINGER, Esq., I.S.O.,

Assistant Chairman, Govt. Railways Managing Board,
Moncton, N.B.

No. 1.—PRINCE EDWARD ISLAND RAILWAY.
CAPITAL ACCOUNT.—12 MONTHS ENDED MARCH 31, 1910.

| 1909. March 31. | Dr. | \$ cts. | 1909. March 31. | Cr. | \$ cts. |
|--------------------|---|--------------|--------------------|-----------------------------|--------------|
| | To cost of P. E. I. Railway to date..... | | | By Dominion of Canada | 8,258,967 94 |
| 1910. March 31. | | | 1910. March 31. | | |
| | To increase accommodation at Charlottetown. \$ 156,531 57 | | | By Dominion of Canada | 206,396 97 |
| | Branch line—Harmony to Elmira..... 49,829 25 | | | | |
| | Montague Branch..... 36 15 | | | | |
| | | 206,396 97 | | | |
| | | 8,465,364 91 | | | 8,465,364 91 |

E. & O. E.,
CHARLOTTETOWN, P.E. I.

W. T. HUGGAN,
Accountant and Auditor.

SESSIONAL PAPER No. 20

No. 2.—PRINCE EDWARD ISLAND RAILWAY.

REVENUE ACCOUNT—TWELVE MONTHS ENDED MARCH 31, 1910.

| EXPENDITURE. | \$ cts. | EARNING. | \$ cts. |
|---------------------------------------|------------|------------------------------|------------|
| Maintenance of way and structures . . | 121,046 70 | Passenger earnings..... | 140,076 83 |
| Maintenance of equipment. | 79,258 26 | Freight earnings..... | 153,373 11 |
| Traffic expenses..... | 968 97 | Mails and express earnings.. | 23,935 58 |
| Transportation expenses. | 211,004 76 | Miscellaneous earnings | 1,689 22 |
| General expenses..... | 15,005 04 | | |
| | 427,283 73 | | 319,074 74 |
| | | Balance. .. | 108,208 99 |
| | 427,283 73 | | 427,283 73 |

E. & O. E.,
CHARLOTTETOWN, P.E.I.

(Sgd.) W. T. HUGGAN,
Accountant and Auditor.

No. 3.—PRINCE EDWARD ISLAND RAILWAY.

MAINTENANCE OF WAY AND STRUCTURES—TWELVE MONTHS ENDED MARCH 31, 1910.

| | \$ cts. |
|---|------------|
| No. 1. Superintendence..... | 2,768 70 |
| 2. Ballast ... | 1,598 58 |
| 3. Ties..... | 10,232 32 |
| 4. Rails..... | 11,008 03 |
| 5. Other track material..... | 5,890 44 |
| 6. Roadway and track..... | 60,149 62 |
| 7. Removal of snow, sand and ice | 11,930 76 |
| 9. Bridges, trestles and culverts..... | 1,564 53 |
| 11. Grade crossings, fences, cattle guards and signs..... | 4,851 21 |
| 12. Snow and sand fences and snow sheds | 411 48 |
| 13. Signals and interlocking plants..... | 14 15 |
| 14. Telegraph and telephone lines | 2 96 |
| 16. Buildings, fixtures and grounds..... | 6,916 88 |
| 17. Docks and wharfs..... | 2,109 48 |
| 18. Roadway, tools and supplies..... | 1,401 77 |
| 23. Stationery and printing..... | 187 84 |
| 25. Other expenses..... | 8 00 |
| | 121,046 70 |

E. & O. E.,
CHARLOTTETOWN, P.E.I.

(Sgd.) W. T. HUGGAN,
Accountant and Auditor.

No. 4.—PRINCE EDWARD ISLAND RAILWAY.

MAINTENANCE OF EQUIPMENT—TWELVE MONTHS ENDED MARCH 31, 1910.

| | \$ | cts. |
|--|--------|------|
| No. 28. Superintendence..... | 6,798 | 15 |
| 29. Steam locomotives—repairs..... | 27,005 | 00 |
| 35. Passenger train cars—repairs..... | 14,485 | 79 |
| 36. Passenger train cars—renewals..... | 4,398 | 84 |
| 38. Freight train cars—repairs..... | 11,471 | 06 |
| 39. Freight train cars—renewals.. | 4,130 | 85 |
| 47. Shop machinery and tools..... | 3,124 | 19 |
| 50. Stationery and printing..... | 272 | 09 |
| 52. Other expenses | 6,860 | 66 |
| 56. Work equipment—repairs..... | 711 | 63 |
| | 79,258 | 26 |

E. & O. E.,
CHARLOTTETOWN, P.E.I.

(Sgd.) W. T. HUGGAN,
Accountant and Auditor.

No. 5.—PRINCE EDWARD ISLAND RAILWAY.

TRAFFIC EXPENSES—TWELVE MONTHS ENDED MARCH 31, 1910.

| | \$ | cts. |
|---------------------------------|-----|------|
| No. 57. Superintendence..... | 17 | 00 |
| 59. Advertising..... | 894 | 09 |
| 60. Stationery and printing.... | 57 | 88 |
| | 968 | 97 |

E. & O. E.,
CHARLOTTETOWN, P.E.I.

(Sgd.) W. T. HUGGAN,
Accountant and Auditor.

SESSIONAL PAPER No. 20

No. 6.—PRINCE EDWARD ISLAND RAILWAY.

TRANSPORTATION EXPENSES—TWELVE MONTHS ENDED MARCH 31, 1910.

| | \$ | cts. |
|---|---------|------|
| No. 66. Superintendence..... | 6,344 | 07 |
| 67. Despatching trains..... | 2,595 | 51 |
| 68. Station employees | 45,038 | 14 |
| 72. Station supplies and expenses..... | 5,849 | 12 |
| 73. Yardmasters and their clerks | 2,000 | 83 |
| 74. Yard conductors and brakemen..... | 1,935 | 25 |
| 76. Yard supplies and expenses..... | 26 | 78 |
| 77. Yard enginemen..... | 4,226 | 05 |
| 78. Enginehouse expenses—yard..... | 1,005 | 77 |
| 79. Fuel for yard locomotives..... | 3,674 | 49 |
| 80. Water for yard locomotives..... | 80 | 00 |
| 81. Lubricants for yard locomotives..... | 128 | 52 |
| 82. Other supplies for yard locomotives | 98 | 85 |
| 86. Road enginemen..... | 23,425 | 86 |
| 87. Enginehouse expenses—road..... | 10,837 | 48 |
| 88. Fuel for road locomotives..... | 46,682 | 45 |
| 89. Water for road locomotives | 2,064 | 38 |
| 90. Lubricants for road locomotives..... | 898 | 58 |
| 91. Other supplies for road locomotives..... | 962 | 71 |
| 94. Road trainmen..... | 31,955 | 39 |
| 95. Train supplies and expenses..... | 7,071 | 15 |
| 98. Drawbridge operation..... | 670 | 28 |
| 99. Clearing wrecks. | 46 | 60 |
| 100. Telegraph and telephone—operation..... | 7,013 | 08 |
| 101. Operation floating equipment | 222 | 40 |
| 103. Stationery and printing..... | 5,787 | 17 |
| 105. Other expenses..... | 4 | 54 |
| 106. Loss and damage—freight..... | 278 | 13 |
| 108. Damage to property. | 56 | 68 |
| 109. Damage to stock on right of way..... | 24 | 50 |
| | 211,004 | 76 |

E. & O. E.,
CHARLOTTETOWN, P.E.I.

(Sgd.)

W. T. HUGGAN,
Accountant and Auditor.

No. 7.—PRINCE EDWARD ISLAND RAILWAY.

GENERAL EXPENSES—TWELVE MONTHS ENDED MARCH 31, 1910.

| | \$ | cts. |
|---|--------|------|
| No. 113. Salaries and expenses of general officers.. | 1,659 | 66 |
| 114. Salaries and expenses of clerks and attendants..... | 5,619 | 07 |
| 115. General office supplies and expenses..... | 294 | 24 |
| 116. Law expenses..... | 73 | 35 |
| 118. Relief department expenses..... | 6,142 | 67 |
| 119. Pensions..... | 5 | 54 |
| 120. Stationery and printing..... | 1,148 | 87 |
| 121. Other expenses..... | 72 | 72 |
| | 15,005 | 04 |

E. & O. E.,
CHARLOTTETOWN, P.E.I.

(Sgd.)

W. T. HUGGAN,
Accountant and Auditor.

1 GEORGE V., A. 1911

No. 8.—PRINCE EDWARD ISLAND RAILWAY.

GENERAL STORES ACCOUNT—12 MONTHS ENDED MARCH 31, 1910.

| 1909. | DR. | \$ | cts. | \$ | cts. | \$ | cts. |
|------------|--|--------|---------|----|------|---------|------|
| March 31. | To balance brought forward | | | | | 77,442 | 27 |
| 1910. | | | | | | | |
| March 31.. | To Purchases during the year | | 150,719 | 57 | | | |
| | Charges from other departments | | 5,128 | 01 | | | |
| | Labour, &c. | | 4,919 | 73 | | | |
| | Pay rolls | | 4,740 | 50 | | | |
| | | | | | | 165,507 | 81 |
| | CR. | | | | | 242,950 | 08 |
| March 31.. | By issues during the year | | | | | 183,643 | 90 |
| | Balance .. { Ordinary stores, including stationery.... | 31,948 | 74 | | | | |
| | { Fuel. | 12,155 | 77 | | | 59,306 | 18 |
| | { Roadway and bridge material. | 15,201 | 67 | | | | |

E. and O. E.
CHARLOTTETOWN, P.E.I.

W. T. HUGGAN,
Accountant and Auditor.

No 9.—PRINCE EDWARD ISLAND RAILWAY.

GENERAL BALANCE—12 MONTHS ENDED MARCH 31, 1910.

| DR. | \$ | cts. | CR. | \$ | cts. |
|--|--------|------|-----------------------------|--------|------|
| General stores | 59,306 | 18 | Dominion account | 72,401 | 20 |
| Post Office Department | 7,263 | 64 | Rhodes, Curry & Co. | 390 | 00 |
| Station agents | 2,112 | 01 | John Simon | 200 | 00 |
| Cash | 2,074 | 63 | Unclaimed wages | 198 | 65 |
| Road and equipment—Suspense. | 1,812 | 93 | | | |
| Department of Marine and Fisheries .. | 296 | 16 | | | |
| Canadian Express Company | 120 | 26 | | | |
| Intercolonial Railway | 67 | 28 | | | |
| Rents account. | 48 | 87 | | | |
| Suspense account. | 47 | 28 | | | |
| Judge Weatherbie | 30 | 00 | | | |
| Charlottetown Steam Navigation Co. . . | 8 | 76 | | | |
| Militia Department. | 0 | 95 | | | |
| Local government of P.E.I. | 0 | 75 | | | |
| Toronto, Hamilton and Buffalo Ry . . . | 0 | 15 | | | |
| | 73,189 | 85 | | 73,189 | 85 |

E. & O. E.,
CHARLOTTETOWN, P.E.I.

(Sgd.) W. T. HUGGAN,
Accountant and Auditor.

SESSIONAL PAPER No. 20

No. 10.—PRINCE EDWARD ISLAND RAILWAY.

STATEMENT OF AVERAGES—YEAR ENDED MARCH 31, 1910.

| | |
|---|-----------|
| Mileage of railway..... | 267 |
| Engine mileage..... | 444,837 |
| Total train mileage..... | 322,522 |
| Total car mileage..... | 2,051,034 |
| Ratio of earnings to gross earning.— | |
| Passenger..... Per cent. | 43·90 |
| Freight..... " | 48·07 |
| Mails and express..... " | 8·03 |
| Gross earnings per mile of railway..... Dollars. | 1,195·03 |
| " engine mile..... Cents. | 71·73 |
| " train mile..... " | 98·63 |
| " car mile..... " | 15·56 |
| Ratio of expenses to gross earnings— | |
| Maintenance of way and structures..... Per cent. | 37·94 |
| Maintenance of equipment..... " | 24·84 |
| Traffic expenses..... " | 0·30 |
| Transportation expenses..... " | 66·13 |
| General expenses..... " | 4·70 |
| Expenses per train mile— | |
| Maintenance of way and structures..... Cents. | 37·41 |
| Maintenance of equipment..... " | 24·50 |
| Traffic expenses..... " | 0·30 |
| Transportation expenses..... " | 65·22 |
| General expenses..... " | 4·64 |
| Expenses per mile of railway— | |
| Maintenance of way and structures..... Dollars. | 453·36 |
| Maintenance of equipment..... " | 296·84 |
| Traffic expenses..... " | 3·63 |
| Transportation expenses..... " | 790·28 |
| General expenses..... " | 56·20 |
| Locomotive and car repairs, per locomotive and car— | |
| Locomotives..... Dollars | 884·03 |
| Passenger cars..... " | 309·58 |
| Freight cars..... " | 30·83 |

E. and O. E.,

CHARLOTTETOWN, P.E.I.

(Sgd.) W. T. HUGGAN,
Accountant and Auditor.

1 GEORGE V., A. 1911

PRINCE EDWARD ISLAND RAILWAY.

STATEMENT OF RECEIPTS.

| Months. | Passenger Traffic. | Freight Traffic. | Mails and Sundries. | Total. |
|----------------|-----------------------|---------------------|------------------------|------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 1909— | | | | |
| April..... | 9,566 64 | 12,881 58 | 2,140 96 | 24,589 18 |
| May..... | 8,545 99 | 18,444 70 | 1,842 39 | 28,833 08 |
| June..... | 10,014 70 | 15,026 55 | 1,772 14 | 26,813 39 |
| July..... | 19,131 91 | 12,714 55 | 2,906 69 | 34,753 15 |
| August..... | 18,499 20 | 10,691 42 | 2,044 78 | 31,235 40 |
| September..... | 17,399 46 | 12,191 13 | 1,990 44 | 31,581 03 |
| October..... | 11,616 31 | 15,286 95 | 1,871 50 | 28,774 76 |
| November..... | 11,030 94 | 18,647 30 | 1,916 65 | 31,594 89 |
| December..... | 9,979 55 | 12,081 57 | 1,989 40 | 24,050 52 |
| 1910— | | | | |
| January..... | 7,445 08 | 6,796 55 | 2,014 83 | 16,256 46 |
| February..... | 7,185 95 | 7,804 22 | 3,006 93 | 17,997 10 |
| March..... | 9,661 10 | 10,806 59 | 2,128 09 | 22,595 78 |
| 1909-10..... | 140,076 83 | 153,373 11 | 25,624 80 | 319,074 74 |
| 1908-09..... | 136,534 04 | 149,150 61 | 25,634 98 | 311,319 63 |

E. and O. E.,
CHARLOTTETOWN, P.E.I.

(Sgd.) W. T. HUGGAN,
Accountant and Auditor.

PRINCE EDWARD ISLAND RAILWAY.

PASSENGER STATEMENT.

| Months. | Local. | | Through. | | Total. | |
|----------------|---------|-----------|----------|----------|---------|-----------|
| | Number. | Mileage. | Number. | Mileage. | Number. | Mileage. |
| 1909— | | | | | | |
| April..... | 28,193 | 519,133 | 189 | 8,813 | 28,382 | 527,946 |
| May..... | 23,665 | 443,035 | 633 | 29,378 | 24,298 | 472,413 |
| June..... | 22,307 | 465,324 | 1,197 | 65,503 | 23,504 | 530,827 |
| July..... | 43,106 | 1,017,302 | 2,711 | 124,733 | 45,817 | 1,142,035 |
| August..... | 35,472 | 790,051 | 5,044 | 221,495 | 40,516 | 1,011,546 |
| September..... | 33,489 | 873,302 | 4,113 | 194,651 | 37,602 | 1,067,953 |
| October..... | 24,851 | 506,980 | 2,381 | 117,896 | 27,232 | 624,876 |
| November..... | 28,352 | 525,617 | 1,589 | 75,111 | 29,941 | 600,728 |
| December..... | 27,675 | 535,172 | 1,099 | 50,392 | 28,774 | 585,564 |
| 1910— | | | | | | |
| January..... | 19,146 | 397,686 | 280 | 13,587 | 19,426 | 411,273 |
| February..... | 18,711 | 409,117 | 96 | 4,772 | 18,807 | 413,889 |
| March..... | 26,649 | 564,032 | 90 | 4,281 | 26,739 | 568,313 |
| 1909-10..... | 331,616 | 7,046,751 | 19,422 | 910,612 | 351,038 | 7,957,363 |
| 1908-09..... | 314,401 | 6,679,808 | 18,357 | 896,259 | 332,758 | 7,576,067 |

E. & O. E.,
CHARLOTTETOWN, P.E.I.

(Sgd.) W. T. HUGGAN,
Accountant and Auditor.

SESSIONAL PAPER No. 20

PRINCE EDWARD ISLAND RAILWAY.

FREIGHT STATEMENT.

| Months. | 1909 10. | | 1908 09. | |
|----------------|----------|-----------|----------|-----------|
| | Tons | Mileage. | Tons. | Mileage. |
| April..... | 7,989 | 267,012 | 5,365 | 203,425 |
| May..... | 13,147 | 433,732 | 10,422 | 360,583 |
| June..... | 10,756 | 386,067 | 10,755 | 428,751 |
| July..... | 8,385 | 276,330 | 7,892 | 317,451 |
| August..... | 6,766 | 253,094 | 7,783 | 265,283 |
| September..... | 7,711 | 271,779 | 8,443 | 303,592 |
| October..... | 10,433 | 363,784 | 12,244 | 398,716 |
| November..... | 13,277 | 433,042 | 12,904 | 452,504 |
| December..... | 7,682 | 253,313 | 8,432 | 283,614 |
| January..... | 3,956 | 162,758 | 6,097 | 234,501 |
| February..... | 6,634 | 210,302 | 6,723 | 240,474 |
| March..... | 9,005 | 252,645 | 9,030 | 310,124 |
| | 105,741 | 3,573,858 | 106,090 | 3,799,008 |

E. & O. E.,
 CHARLOTTETOWN, P.E.I.

(Sgd.) W. T. HUGGAN,
Accountant and Auditor.

1 GEORGE V., A. 1911

PRINCE EDWARD ISLAND RAILWAY.

DESCRIPTIVE STATEMENT OF FREIGHT TRANSPORTED—TWELVE MONTHS ENDED MARCH 31, 1910.

| Products of. | Commodity. | Tons. |
|------------------------|--|---------|
| Agriculture | Grain | 12,918 |
| | Flour | 4,374 |
| | Other mill products | 1,468 |
| | Hay | 2,912 |
| | Tobacco | 166 |
| | Cotton | 43 |
| | Fruit and vegetables | 7,886 |
| Animals | Live stock | 3,562 |
| | Dressed meats | 2,307 |
| | Other packing house products | 2,676 |
| | Poultry, game and fish | 3,030 |
| | Wool | 48 |
| | Hides and leather | 421 |
| Mines | Anthracite coal | 313 |
| | Bituminous coal | 7,523 |
| | Stone, sand, and other like articles | 2,959 |
| Forest | Lumber | 13,358 |
| Manufactures | Petroleum and other oils | 811 |
| | Sugar | 907 |
| | Naval stores | 48 |
| | Iron, pig and bloom | 439 |
| | Iron and steel rails | 598 |
| | Other castings and machinery | 564 |
| | Bar and sheet metal | 145 |
| | Cement, brick and lime | 1,334 |
| | Agricultural implements | 711 |
| | Wagons, carriages, tools, &c. | 287 |
| | Wines, liquors and beers | 288 |
| Miscellaneous | Household goods and furniture | 481 |
| | Other commodities, not mentioned above | 33,164 |
| Total weight | | 105,741 |

E. & O. E.,
CHARLOTTETOWN, P.E.I.

(Sgd.) W. T. HUGGAN,
Accountant and Auditor.

SESSIONAL PAPER No. 20

PRINCE EDWARD ISLAND RAILWAY.

OFFICE OF THE CHIEF ENGINEER,

MONCTON, N.B., June 29, 1910.

SIR.—I have the honour to submit the following report on capital account expenditure for the fiscal year ending March 31, 1910:—

TO INCREASE ACCOMMODATION AT CHARLOTTETOWN.

A 20-stall brick and concrete engine-house was provided. The turn-table that was used in the old engine-house was temporarily installed in the new engine-house.

A new 55-foot steel turn-table was purchased; but on account of the closing of navigation it could not be transported to Charlottetown last fall. It will be delivered and erected in place at an early date.

The old engine-house was torn down.

A wood-shed was provided at the new engine-house.

A concrete and brick ash pit was built.

A coal shed was provided at the power-house.

A lumber and hardware storehouse was built.

Part of the old machine shop was torn down, and the remaining part converted into a brass and copper shop.

A shed for storing sand was built, and a sand drying apparatus installed.

A railway wharf and freight shed on it were completed.

A coal shed was built on the railway wharf.

A new 80-ton track scale was provided and placed opposite the new freight shed, on a concrete foundation.

Additional yard accommodation was provided by the removal of old and obsolete buildings, and laying 4,900 feet of new tracks.

The following new machinery was provided and installed on concrete foundations in the new shops:—

- 1 72-inch wheel lathe.
- 1 72-inch tire turning and boring mill.
- 1 48-inch x 12-foot iron planer.
- 1 300-ton wheel press.
- 1 24-inch engine lathe.
- 1 36-inch engine lathe.
- 1 18-inch engine lathe.
- 1 16-inch engine lathe.
- 1 16-inch slotting machine.
- 1 Brown & Sharpe milling machine.
- 1 Brown & Sharpe reamer and grinder.
- 2 centering machines.
- 1 Acme bolt tapper.
- 1 Acme 3-headed bolt cutter.
- 1 surface grinder.
- 1 emery stone sand.
- 1 hand press for driving boxes.
- 1 set punch and shears.
- 1 set 6-inch rolls.

1 GEORGE V., A. 1911

- 1 set 12-inch boiler plate rolls.
- 1 tube rumbler.
- 1 tube welder and furnace.
- 1 1,200-lb. steam hammer.
- 1 Beaudry hammer.
- 1 Spring furnace.
- 1 strap furnace.
- 2 band saws.
- 1 rip saw.
- 1 cutting off saw with motor drive.
- 1 variety wood worker.
- 1 Daniel planer.
- 2 50 h.p. motors.
- 1 pipe bending machine.
- 1 small hollow chisel mortiser.
- 1 75 h.p. engine and generator.
- 2 feed pumps.
- 1 super heater.
- 3 250 h.p. Canada Foundry boilers.

Steam heating was installed in the paint, upholstering and copper shops.
The new shops were wired for electric lighting.

Branch Line, Harmony to Elmira. .

A contract was let for the grading, masonry, &c., for a branch line from Harmony to Elmira, a distance of 9.9 miles. About 75 per cent of the clearing was completed. The concrete culverts were built and some grading done. The right of way was settled for with the exception of a few lots, which will be dealt with during fiscal year 1910-11.

Plans and specifications were prepared and tenders asked for the following buildings in connection with this branch line:—

Elmira.—Two-stall wooden engine house, booking station and platform, coal shed, freight shed and platform.

Baltic Road.—Way station and platform.

Harmony.—Way station and platform.

New Harmony Road.—Shelter and platform.

Munn's Road.—Shelter and platform.

To be located.—Two tool houses.

Montague Branch.

An award of the Exchequer Court of \$36.15 was paid by the Department of Railways and Canals for land taken for the right of way. There was no capital appropriation provided for this, but being an Exchequer Court award, the amount is chargeable against any moneys voted by parliament.

I have the honour to be, sir,

Your obedient servant,

(Sgd.) WM. B. MACKENZIE,

Chief Engineer.

D. POTTINGER, Esq., I.S.O.,

Asst. Chairman, Govt. Rys. Managing Board,
Moncton, N.B.

PRINCE EDWARD ISLAND RAILWAY.

OFFICE OF THE MECHANICAL SUPERINTENDENT,

CHARLOTTETOWN, P.E.I., April 15, 1910.

SIR,—I beg to submit for your information the following statement of the operation of the mechanical department for the year ended March 31, 1910.

The following is a summary of the principal work performed:—

LOCOMOTIVES.

Ten locomotives received heavy repairs. Seven received new side and main rod brasses, all the motion and running gear thoroughly repaired, stay-bolts in boilers thoroughly examined, and six hundred new stay-bolts put in boilers.

Ten locomotives received specific repairs.

Four locomotives received new pistons and piston rods. Four new engine pilots and four new cross-heads were made, and twenty-eight lined with tin and planed, two new whistles, two new pop valves, four new boiler checks, four hundred and eleven sets metallic packing, four new sets valve stems, six new driving boxes, twelve sets engine truck boxes, six sets dead eyes for side rods, twenty sets new rod brasses, two piston rod cups, eight piston rod slushers, twenty-eight driving box brasses, one grease press for pressing grease for driving boxes, twenty-eight grease cups, twenty-seven cylinder cocks, four air cocks, one relief valve, twelve locomotive smokestacks, thirty smokejacks for round houses on road, and twelve driving springs were made.

Four pop valves, six tender tanks, two hundred and sixty-three driving springs and fourteen cabs were repaired, and four were largely rebuilt. Two engine frames were broken and repaired. Twelve sets valve stems, thirty-one sets driving wheels, twenty sets engine truck wheels, one hundred and sixty-three pairs of steel tired wheels, and one hundred and twelve new axles were turned. Two hundred and twenty-nine wheels were bored out and pressed on axles, eight hundred tubes pieced and put in locomotives and five hundred and fifteen truck straps bored. Eighty-eight thousand two hundred and six pounds of iron, and 2,553 pounds of steel were forged; 5,139 pounds of nuts were tapped, and a great deal of running repairs done.

CAR DEPARTMENT.

One first-class car was rebuilt and ten flat cars were rebuilt and charged to renewals.

The following received heavy repairs:—

Ten first-class cars and one was upholstered, two second-class cars, three second-class and baggage, one second-class and smoking, three postal and baggage, five postal and smoking, five baggage, one coach, sixty-eight box cars, one coal car, five hand cars, one sheep car, eight snow ploughs and six flangers.

The following received light repairs:—

Fourteen first-class cars, fourteen second-class cars, two second-class and baggage, two baggage, one official car, twenty-four box cars, one postal and smoking, five old cars, one van, eight flat cars, four stock cars and eight snow ploughs.

Four cars were seated for excursions, two first-class cars and six box cars had cotton duck roofs put on, and five box cars had new trucks. Two hundred and eight sets car oil boxes were fitted up.

1 GEORGE V., A. 1911

BRASS FOUNDRY.

The following was the output of this foundry:—

Thirteen thousand, one hundred and forty-eight pounds of brass castings, ninety-six pounds of bronze castings and eighteen pounds of solder for Charlottetown station.

COPPER SHOP.

Twenty-seven headlights, one headlight case, two discharge pipes, three oil pipes, one sand pipe, one elevator and feed pipe, two slides for reversing levers, two sprinklers, one elevator pipe, and lagging were repaired.

Thirteen wire joints for steam chests, three piston rods, one valve stem rod, five wire joints for valve stem and piston packing, two perforated hard grease strainers, two water glass protections, and one overflow pipe were made.

Three truck brasses, one rod brass, seven driving boxes, six truck boxes and four crossheads were babbitted. Four crossheads and one main rod brass were tinned. We have also done numerous repairs to feed pipes too numerous to mention.

PAINT SHOP.

Ten locomotives were painted, one varnished, and five cleaned and touched up.

Four first-class cars were painted, and six cleaned and varnished; six second-class cars were painted; and five cleaned and varnished; five baggage and postal cars were painted and eight cleaned and varnished, and one had roof painted. Seventy-two box cars, one hundred and twenty-eight box car roofs, eleven flat cars, two snow ploughs, three flangers, seven hand cars, and ten car roofs were painted. One hundred and twenty-two box cars were lettered, and fifty had capacity changed. Ten freight trucks, and thirty switch targets were painted, forty-eight sashes were painted and glazed, fourteen sign boards lettered, and two desks filled and varnished.

A great deal of work has been done by our shop painters for the road department on stations, agents' dwellings, switch frames, &c.

ROAD AND TRAFFIC DEPARTMENT.

Sixteen loading platforms, eighteen freight trucks, six cattle stages, two hand cars, twenty-three sectionmen's hand cars, two ash cars, one grindstone stand, twenty-four switch targets, twelve signal targets, forty-two sign boards, three boards to fasten outside lamps to, seven wheelbarrows, three chairs, four step boxes, ten coal boxes, one tool box, four ice boxes, five boxes for freight house, four letter boxes for offices, eight outside sashes, five door sills, six camp stools, one office stool, four ladders, one stand and box for grease compressor, two screens, one cash drawer, two desks, four work benches, one cupboard, seven water closets, one case, one desk and two boxes for time clock, one ash table for rest room, one pulley, one rail bender, twenty-two sets connecting rods, twelve sets headers, fifty-six knees for bridges on road, one hundred and twelve clasps for bridge, four lorries, two track jacks, eleven sets switch gear complete, twenty-six sets switch rods, four sets switch rods and headers, and two switches were made.

Three hand cars were repaired, and three rebuilt; eight freight trucks, one baggage truck, one trunk truck, nine coal boxes, eight track jacks, five frogs, and ten switch rods were repaired.

Twenty-four squares of shingling were laid, and one shop and one coal house fitted up. Four hand-car cranks made and fitted on lorries.

We were put to a great inconvenience on account of the round-house being torn down, but it is now replaced by a new and up to date twenty stall round-house which

SESSIONAL PAPER No. 20

gives us all the facilities we require. Our rolling stock has been kept in a high state of efficiency; and we have all the machinery installed in our shops which, I consider, are modern and up to date in every respect.

I have the honour to be, sir,

Your obedient servant,

W. L. POOLE.

Mechanic and Superintendent.

G. A. SHARP, Esq.,

Superintendent, P.E.I. Railway.

PRINCE EDWARD ISLAND RAILWAY.

STATEMENT showing the number of Locomotives and the various classes of Cars and other Rolling Stock on March 31, 1910.

| | CLASSIFICATION OF CARS. | | | | | | | | | | | | | | | Locomotives. | |
|--------------------------------------|-------------------------|------------|---------------------------|---------------------|------------------------------|----------|----------|-------|--------------|--------------------|--------|-------|-----------|--------|---------------|--------------|-----------|
| | 1st Class. | 2nd Class. | Combined 2nd and Baggage. | Postal and Smoking. | Combined Postal and Baggage. | Baggage. | Pay Car. | Vans. | Box Freight. | Refrigerator Cars. | Stock. | Coal. | Platform. | Total. | Snow Ploughs. | | Flangers. | Total. |
| On hand, serviceable, March 31, 1909 | 31 | 23 | 12 | 5 | 4 | 3 | 4 | 1 | 3 | 313 | 3 | 21 | 22 | 138 | 9 | 9 | 18 |
| Condemned, April 1, 1909 | | | 2 | | 1 | 2 | | | 1 | | | | | 9 | 1 | | 1 |
| Total equipment, April 1, 1909 | 31 | 23 | 12 | 7 | 4 | 4 | 6 | 1 | 4 | 313 | 3 | 21 | 22 | 147 | 10 | 9 | 19 |
| Condemned, April 1, 1909 | | | 2 | | 1 | 2 | | | 1 | | | | | 9 | 1 | | 1 |
| Condemned during the year | | 1 | 3 | | | | | | | | | | | 2 | | | |
| Total condemned | | 1 | 3 | 2 | | 1 | 2 | | 1 | | | | | 11 | 1 | | 1 |
| Less rebuilt during the year | | 1 | | | | | | | | | | | | 10 | | | |
| To be rebuilt | | | 2 | | 1 | 2 | | | 1 | | | | | 1 | 1 | | 1 |
| Add serviceable and repairing | 31 | 23 | 9 | 5 | 4 | 3 | 4 | 1 | 3 | 313 | 3 | 21 | 22 | 146 | 9 | 9 | 18 |
| Total equipment, March 31, 1910 | 31 | 23 | 12 | 7 | 4 | 4 | 6 | 1 | 4 | 313 | 3 | 21 | 22 | 147 | 10 | 9 | 19 |

Signed, S. F. HODGSON,

Mechanical Accountant.

PRINCE EDWARD ISLAND RAILWAY.

STATEMENT of Mileage and Coal, Oil and Waste Consumed by Locomotives for the year ended March 31, 1910.

| | Locomotive Mileage. | CONSUMPTION. | | | | AVERAGE CONSUMPTION PER 100 MILES. | | | |
|----------------|------------------------|------------------|------------------------|-------------------------|---------------------|------------------------------------|------------------------|-------------------------|---------------------|
| | | Tons of Coal. | Pints of Valve Oil. | Pints of Engine Oil. | Pounds of Waste. | Pounds of Coal. | Pints of Valve Oil. | Pints of Engine Oil. | Pounds of Waste. |
| 1909. | | | | | | | | | |
| April..... | 34,032 | 840 | 444 | 1,024 | 534 | 5,558 | 1.34 | 3.01 | 1.57 |
| May..... | 40,866 | 1,011 | 420 | 1,160 | 672 | 5,541 | 1.02 | 2.83 | 1.64 |
| June..... | 40,411 | 942 | 476 | 1,192 | 656 | 5,221 | 1.17 | 2.95 | 1.62 |
| July..... | 46,366 | 1,099 | 620 | 1,420 | 642 | 5,309 | 1.34 | 3.06 | 1.38 |
| August..... | 42,173 | 995 | 564 | 1,260 | 637 | 5,285 | 1.33 | 2.99 | 1.51 |
| September..... | 41,353 | 1,068 | 500 | 1,112 | 642 | 5,785 | 1.21 | 2.69 | 1.55 |
| October..... | 37,554 | 1,005 | 444 | 932 | 576 | 5,994 | 1.18 | 2.48 | 1.53 |
| November..... | 40,977 | 1,177 | 508 | 940 | 620 | 6,434 | 1.24 | 2.29 | 1.51 |
| December..... | 39,403 | 1,144 | 600 | 1,136 | 663 | 6,503 | 1.52 | 2.88 | 1.68 |
| 1910. | | | | | | | | | |
| January..... | 36,559 | 987 | 580 | 1,224 | 631 | 6,047 | 1.58 | 3.34 | 1.72 |
| February..... | 30,533 | 856 | 400 | 848 | 522 | 6,279 | 1.31 | 2.77 | 1.71 |
| March..... | 31,960 | 853 | 278 | 740 | 502 | 5,978 | 0.87 | 2.31 | 1.57 |
| Totals..... | 462,187 | 11,977 | 5,834 | 12,988 | 7,297 | 5,804 | 1.26 | 2.81 | 1.58 |

Signed, S. F. HODGSON,

Mechanical Accountant.

PRINCE EDWARD ISLAND RAILWAY.
DETAILS of Accidents for the Period ending March 31, 1910.

| Date. | Name, Address and Occupation of Persons. | Place of Accident | Cause. | Nature and Extent of Injury. |
|----------|---|-------------------|---|------------------------------|
| 1909. | | | | |
| April 7. | Charles Bradley, Grand View, section foreman..... | Grand View | Slipped into cattle guard | Sprained ankle. |
| " 19. | William Hetheridge, Charlottetown, section labourer.. | Charlottetown | Slipped while lining track | Back sprained. |
| " 24. | James Mullins, Charlottetown, labourer..... | " | Unloading car wheels. | Sprained ankle. |
| May 4. | Hector McLeod, Charlottetown, fitter's helper..... | " | Struck by bar iron..... | Toe bruised. |
| " 6. | Bert Newsome, Charlottetown, machinist..... | " | Casting fell on foot. | " |
| " 17. | Alphens Arsenault, Summerside, coal handler..... | Summerside | Coal tub fell on foot..... | Foot bruised. |
| " 21. | James H. Partridge, Mt. Stewart, section foreman. | Mt. Stewart | Struck with lever of track jack | Rib fractured. |
| June 17. | Jas. Herrell, Charlottetown, improver..... | Charlottetown | Foot caught between engine and turntable. | Foot injured. |
| " 26. | John O'Neill, Charlottetown, labourer..... | " | Lump of coal fell on leg..... | Leg injured. |
| July 7. | Hector McDonald, Charlottetown, carpenter... | " | Board fell on head..... | Head injured. |
| " 30. | David Garnham, Charlottetown, labourer..... | " | Slipped and hurt knee..... | Knee injured. |
| Aug. 1. | Martin Mahar, Charlottetown, blacksmith's helper | " | Made a miss blow while striking. | Dislocated kidney. |
| " 5. | John Currie, blacksmith, Charlottetown..... | " | Moving wheel..... | Hand sprained. |
| " 12. | John Harrell, Charlottetown, labourer..... | " | Moving heavy casting..... | Sprained muscles of side. |
| " 19. | Peter Flynn, Charlottetown, car cleaner..... | " | Slipped off car steps..... | Ribs fractured. |
| " 21. | H. J. Love, Charlottetown, locomotive driver..... | Montague | Replacing engine on track | Arm injured. |
| " 25. | James Revell, Charlottetown, locomotive fireman. | Summerside | Fixing brake shoes..... | Hand cut. |
| Sept. 6. | Harry Nelson, Charlottetown, labourer..... | Milton | Rail fell on leg..... | Leg fractured. |
| " 22. | Joseph O'Reilly, Charlottetown, brakeman | Murray Harbour | Stumbled over hand car | Rib fractured. |
| Oct 14. | Jas. J. Graham, Bradallane, carpenter..... | O'Leary | Struck with plank..... | Testicle injured. |
| Nov. 1. | Urbain M. Gaudet, Fignish, section foreman. | Tignish | Unloading rails..... | Sprained back. |
| " 1. | John Howatt, Cape Traverse, section labourer. | Kinkora. | Loading rails..... | Thumbs crushed. |
| " 11. | John McPherson, Charlottetown, fitter..... | Charlottetown | Wedge fell on foot. | Foot injured. |
| " 23. | Charles Bradley, Cardigan, section labourer | Cardigan | Lifting hand car..... | Hip strained. |
| " 27. | Samuel E. Graham, O'Leary, section labourer..... | O'Leary.. | Laying rails..... | Finger broken. |
| Dec. 24. | Joseph O'Reilly, Charlottetown, brakeman..... | Uigg | Slipped while closing car door | Sprained foot. |
| " 30. | Frank Gillis, Cape Traverse, cleaner..... | Cape Traverse | Slipped off steps of engine | Legs injured. |
| 1910. | | | | |
| Jan. 6. | Fenton Higgins, Charlottetown, fireman..... | Charlottetown | Shaker bar of engine slipped and cut thumb. | Thumb cut. |
| " 29. | William Gillis, Summerside, section foreman. | Summerside | Fell while repairing semaphore..... | Sprained ankle. |
| Feb. 4. | Owen McQuaid, Charlottetown, fireman..... | Charlottetown | Finger hurt in stoker..... | Finger injured. |
| " 14. | James Keough, Charlottetown, apprentice..... | " | At work in shop..... | Sprained neck. |

SESSIONAL PAPER No. 20

PRINCE EDWARD ISLAND RAILWAY.

ACCIDENTS during period ended March 31, 1910.

| Cause of Accident. | PASSENGERS. | | EMPLOYEES. | | OTHERS. | | TOTAL. | |
|--|-------------|----------|------------|----------|---------|----------|---------|----------|
| | Killed. | Injured. | Killed. | Injured. | Killed. | Injured. | Killed. | Injured. |
| 1. Fell from cars or engine | | | | 2 | | | | 2 |
| 2. Jumping on or off trains while in motion. | | | | | | | | |
| 3. At work on or near the track making up trains. | | | | | | | | |
| 4. Putting arms or heads out windows. | | | | | | | | |
| 5. Coupling cars | | | | | | | | |
| 6. Collisions, or by trains thrown from track | | | | | | | | |
| 7. Struck by engines or cars on highway crossings. | | | | | | | | |
| 8. Walking, standing, lying, sitting, or being on track. | | | | 8 | | | | 8 |
| 9. Explosions. | | | | | | | | |
| 10. Striking bridges. | | | | 21 | | | | 21 |
| 11. Other causes. | | | | | | | | |
| Total. | | | | 31 | | | | 31 |

CHARLOTTETOWN, P.E.I.,

May 31, 1910.

INTERCOLONIAL AND PRINCE EDWARD ISLAND RAILWAYS
EMPLOYEES' PROVIDENT FUND.

THIRD ANNUAL REPORT.

MONCTON, N.B., May 21, 1910.

To the Honourable GEORGE P. GRAHAM,
Minister of Railways and Canals, Ottawa.

By instructions of the Provident Fund Board, we beg to submit for your information, the following report of the operations of the Provident Fund, for the fiscal year ended March 31, 1910.

The personnel of the Provident Fund Board for that year, was as follows:—

| | |
|---|---|
| D. POTTINGER, Assistant Chairman, Government Railways Managing Board, Chairman, Moncton. | } Appointed by the Minister. Elected by the Employees. |
| W. A. DUBÉ, Superintendent, I.C.R., Levis. | |
| T. C. BURPEE, Engineer of Maintenance, I.C.R., Moncton. | |
| JAMES W. NAIRN, Engineman, I.C.R., Truro. | |
| W. MILLEDGE THOMPSON, Conductor, I.C.R., Moncton. | |

Four regular meetings, and one special meeting were held by the board during the year.

The following is a statement of the receipts and expenditures during the year ended March 31, 1910:—

SESSIONAL PAPER No. 20

The Act provides that two members of the Provident Fund Board, shall be elected annually, and it was therefore necessary in January, 1910, to arrange for the election of these two members, to serve during the year ending March 31, 1911.

Notices calling for the nomination of candidates, was accordingly posted, as required by the rule, and the election was held in February, 1910.

The two members elected were:—

W. MILLEDGE THOMPSON, Conductor, I.C.R., Moncton.

WILLARD P. HUTCHINSON, Train Despatcher, I.C.R., Truro.

The personnel of the board as at present constituted, is as follows:—

D. POTTINGER, Assistant Chairman, Government Railways Managing Board,
Chairman, Moncton.

| | | |
|--|---|---|
| W. A. DUBÉ, Superintendent, I.C.R., Lévis. | } | Appointed by the Minister. Elected by the employees. |
| T. C. BURPEE, Engineer of Maintenance, I.C.R., Moncton. | | |
| W. MILLEDGE THOMPSON, Conductor, I.C.R., Moncton. | | |
| WILLIARD P. HUTCHINSON, Train Despatcher, I.C.R., Truro. | | |

D. POTTINGER,

Assistant Chairman,

Government Railways Managing Board, Chairman.

W. C. PAVER,

Secretary.

PART IV

REPORT OF THE GOVERNMENT CHIEF ENGINEER
OF THE WESTERN DIVISION OF THE
NATIONAL TRANSCONTINENTAL
RAILWAY

MR. COLLINGWOOD SCHREIBER, C.M.G.

*Office of the General Consulting Engineer to the Government and Chief Engineer of
the Western Division of the National Transcontinental Railway.*

OTTAWA, Canada, May 2, 1910.

The Honourable GEORGE P. GRAHAM,
Minister of Railways and Canals,
Ottawa, Ontario.

SIR,—I have the honour to submit my annual report on the condition of the western division of the National Transcontinental Railway for the fiscal year ended March 31, 1910, covering also the period between that and the present date.

The total length of this division is about 1,751 miles, divided into two sections, viz.:—The 'Prairie Section' which extends from the west bank of the Assiniboine river, in the city of Winnipeg, to the east bank of Wolf creek, a distance of 915 miles, and the 'Mountain Section,' extending from the east bank of Wolf creek to the western end of the city of Prince Rupert, the Pacific coast terminus, a distance of about 836 miles.

PRAIRIE SECTION.

The entire section is graded and the structures are built. The main line track is laid and sidings have been constructed at 138 stations, aggregating 140½ miles in length.

Four hundred and seventy-four miles of main line are fully ballasted; 350 miles have a first lift of ballast of about five inches in depth, and there remain 35 miles of skeleton track between Entwhistle and Wolf creek. The embankments on this 35 miles are largely composed of muskeg, so soft that the track had to be laid on the winter season when the ground was frozen solid. The work of covering these soft muskeg embankments with several feet of sand is now in progress; this will not only do good service in holding the embankments in shape when the frost is coming out of the ground, but also in preventing the muskeg from taking fire.

The fencing of the line is well advanced, there having been 732 miles of double fence erected.

A telegraph line has been built over the entire 'Prairie Section' of 915 miles, of which 793 miles is a four-wire line and 122 miles a two-wire line.

Eleven interlocking plants have been established at rail level crossing of other railways.

Water services have been introduced at 49 stations. Some of these have, however, proved unsatisfactory, both as regards the quality and quantity of water, and will probably have to be abandoned and other means of procuring water resorted to.

Six round houses have been built, viz.:—At Rivers, 18 stalls; Melville, 12 stalls; Watrous, 12 stalls; Biggar, 12 stalls; Wainwright, 12 stalls; Edmonton, 18 stalls; and two small engine houses have also been erected—one of two stalls at Portage la Prairie and one of two stalls at South Saskaton.

Machine shops have been built at Rivers, Melville and Edmonton, three divisional stations.

The round house at Rivers was damaged by fire on the 8th of December, 1909, and the blacksmith shop at the same place was destroyed by fire on the 14th November, 1909.

1 GEORGE V., A. 1911

Five divisional station houses, 26 way station houses, 54 section houses, 66 tool houses, 79 bunk houses, 5 coaling plants, 80 permanent and 22 temporary loading platforms, 18 stock yards and 115 grain elevators have been erected.

The grain elevators were built at the stations along the line by private enterprise.

The station house at Rivers was damaged by fire on December 8, 1909, and the way station houses at Uno and Bradwell were destroyed by fire on August 16, 1909, and February 14, 1910, respectively.

The portion of the road between Winnipeg and Edmonton—795 miles—has been regularly operated for public traffic since September 13, 1909, under authority of the Board of Railway Commissioners. On the 120 miles west of Edmonton, though there is no regular operation, there has been attached to the construction trains since February 1, 1910, a combination passenger and freight car for the convenience of those concerned; this course being adopted in view of representation made in the matter in order to meet the demands for this accommodation pending the completion of the section. The main object of running the trains over this 120 miles was to carry to the front the large quantities of plant and supplies required for distribution along the works on the 'Mountain Section,' preparatory to commencing construction operations upon the opening of the working season, and the object has been satisfactorily attained.

MOUNTAIN SECTION.

Location plans and profiles have been approved by the government and the Board of Railway Commissioners from Wolf creek westward for a distance of 289 miles, and from Prince Rupert easterly for 409 miles, leaving a gap of 138 miles, the location plans and profiles of which have not yet been submitted by the Grand Trunk Pacific Railway Company for approval.

Of the 289 miles from Wolf creek westerly, only 179 miles have, as yet, been put under contract, for this Messrs. Foley, Welch and Stewart are the contractors.

As the contracts were only awarded late last autumn very little work has been done beyond the first mile west of Wolf creek. The work on this mile is very heavy, there being two large steel bridges to be erected and a cutting of over 130,000 cubic yards to be taken out. The first structure will be 622 feet in length and 130 feet high, crossing Wolf creek. The second structure is to span the McLeod river; it will be 1,052 feet long and 125 feet high. The concrete piers, pedestals and abutments of these two bridges are completed in readiness to receive the superstructure. The large cutting containing over 130,000 cubic yards, lying between these two bridges is sufficiently advanced towards completion to admit of the track being laid through it. The false work over the Wolf creek is completed, and tracklaying will at once be carried forward to the McLeod river in order that the steel superstructure of this bridge may be transported by train.

The work of excavation in the 'big cutting' between Wolf creek and the McLeod river is being treated by me at the contract prices per cubic yard according to classification.

The erection of the superstructure of these two bridges will be carried on simultaneously, so as to have them completed at the earliest possible date in order that the tracklaying may be proceeded with during the ensuing summer season, so that the cost of transportation of supplies and plant for the sections of road not yet under contract may be greatly reduced, thus affecting favourably the tenders for the work.

The work executed westward from the McLeod river is inconsiderable, being chiefly composed of about 1,640 acres of clearing, the moving of about 240,000 cubic yards of excavation, the delivery and driving of piles for a number of pile bridges, as well as the delivery of a quantity of timber for same. However, the line is well provided with the requisites in the form of supplies and plant for energetic prosecution of

SESSIONAL PAPER No. 20

the work, and I learn that the force is already being considerably increased, so that by the time the frost is out of the ground, which will probably be about the middle of May, it is expected a large body of labourers will be employed.

During the winter season over 3,600 car loads of plant and supplies reached Wolf creek, and were at once forwarded and distributed by teams along the line of work.

Of the 409 miles from Prince Rupert easterly, the location of which is approved, 240 miles only are under contract. Messrs. Foley, Welch and Stewart are the contractors.

Of the first 100 miles out of Prince Rupert easterly the grading and culvert structures are far advanced towards completion, and a few pile bridges have been built, leaving a number yet to be constructed. Of the six steel bridges to be built, beyond the delivery at Prince Rupert of one cargo of steelwork and the manufacture of the balance of the steel superstructures, which I understand are ready for shipment to Prince Rupert, very little has been done. The only steel bridge concrete substructure that has so far been commenced is that of the bridge over the Zanardi rapids, of which the two abutments and one pier are nearly completed for it and the building of the caissons for the remaining four piers is well advanced. However, the delay in the building of these permanent structures will not prevent the tracklaying being proceeded with. So soon as the steel superstructure of this Zanardi rapids bridge is erected, the temporary pile structures to be used as false work for the erection of the remaining steel superstructures being constructed of sufficient strength to carry the tracklaying trains will be finished.

About seven miles of track have been laid easterly from Prince Rupert, and sufficient rails and fastenings have been delivered to cover 200 miles, together with enough ties for 100 miles.

A wharf has been built at Prince Rupert and is in general use.

On the 140 miles east of the first 100 miles very little work has been accomplished during the past winter season. A few rock cuts have been opened and a tunnel is being driven; nothing much can, however, be done until the opening of navigation on the Skeena river, when, no doubt, the supplies and plant now lying at Prince Rupert will be rapidly brought up in the contractors' steamers.

The Skeena river, it appears, was last year frozen over a month earlier than in former seasons, thus preventing the contractors from supplying the works for this 140 miles with the necessary outfit.

No station or other buildings have up to the present date been erected on this 240 miles, excepting the warehouse on the wharf at Prince Rupert.

It is a matter of much gratification to bear testimony to the faithful and satisfactory manner in which the several government inspecting engineers have discharged their duties, and to find that the division engineers of the Grand Trunk Pacific Railway Company have always given a ready ear and fair consideration to any complaints or suggestions they may have made, either as to the location of the line or as to the works of construction. I may say that the chief engineer of the company has frequently expressed to me his view that as the inspecting engineers have such great opportunities of observation in their personal examination of the works, it would be an assistance to his staff to have their attention so drawn to any matter which appeared to need consideration.

I have the honour to be, sir,

Your obedient servant,

(Sgd.) COLLINGWOOD SCHREIBER,
*Chief Engineer of the Western Division of
the National Transcontinental Railway.*

PART V

PROGRESS REPORT

ON

HUDSON BAY RAILWAY SURVEYS

BY

MR. JOHN ARMSTRONG

Chief Engineer of Survey

OCTOBER 30, 1909.

Hon. GEORGE P. GRAHAM,
Minister of Railways and Canals,
Ottawa, Ont.

SIR,—I have the honour to report upon the Hudson Bay Railway project, as follows:—

Mr. John Armstrong, B.A., B.A.Sc., M. Can. Soc. C.E., was appointed Chief Engineer in the fall of 1908. He promptly organized four parties and carried on his work in a most satisfactory manner, and to him and his assistants credit is due for an efficient piece of work. Lines were run to Fort Churchill and Port Nelson from The Pas Mission, and contours were taken closely enough to enable a projected location to be made that reasonably assures accurate quantities; and detailed surveys were made of the harbour of Fort Churchill and Port Nelson—and an important river crossing.

The basis of Mr. Armstrong's estimate is given in full detail. He has estimated for 60 pound rails; I have increased his estimate to provide for 80 pound rails and fastenings; and as he has not estimated for round houses, shops, buildings, elevators and yard facilities at terminals, or harbour works, I have accordingly estimated for these items.

I find considerable difficulty in deciding upon what basis to provide accommodation for a railway that, in the nature of things, cannot be operated to its capacity for more than two months in the year—to a lessened extent for a possible three months, and for the remainder of the year still less. I have, however, provided facilities on a scale that will admit of the maximum capacity for a single track; passing tracks and telegraph stations every five miles, water stations every fifteen miles, and round house and shop accommodation sufficient to care for thirty-two (32) freight trains and one (1) express train per day of twenty-four (24) hours.

Mr. Armstrong has discussed the merits of the harbours at Churchill and Nelson; and as he has furnished plans with soundings, I have plotted the piers and terminals required.

From the information, there is no room for doubt that Nelson is much the better harbour. The line is also shorter by 67 miles, the country through which it runs is better, and the possibility of local business altogether with the Nelson route. There is also a probability that a fair proportion of the route is available for settlement; whereas on the Churchill route, there is no such probability beyond Split lake, where the lines separate.

It is of the utmost importance that a hydrographic survey should be made of the Hudson strait and bay, so that the position and cost of the necessary lighthouses may be ascertained. This work properly belongs to the Marine Department, and is important enough to demand the personal attention of its most capable officer; and while in progress, complete observations should be taken by reliable men stationed at Cape Chidley and Resolution island, at the mouth of Hudson strait, at Salisbury

1 GEORGE V., A. 1911

island near the junction of the Fox channel, and at Mansfield island, as well as at the mouth of the Nelson itself. The course from Mansfield island to Nelson requires to be accurately chartered, and the exact positions of the lighthouses necessary at the mouth of the channel should be fixed. It would be well to also secure information as to the harbours on the Labrador coast, and the special feature of Davis strait. A good sea-going boat is required at Nelson for a year or two, to study the bay itself, its tides, currents, &c. Particular study should be made of the mouth of Ungava bay; and also, as to all harbours of refuge along the route and the best way to approach them, where safe anchorage may be had, &c. A lighthouse will be required at the most southerly end of Greenland.

The route will pass to the north of Ireland, and the distance from Liverpool to Port Nelson as measured on a mercator projection map, is 3,200 miles—against 3,007 from Montreal to Liverpool.

The crux of the matter is—what business can be handled by such a railway, and of what value it is likely to be to the country tributary to it? The general map of the Northwest, which accompanies the report, shows, by concentric circles, the areas tributary to Pas Mission (the starting point of our line) and Winnipeg. For all practical purposes the city of Winnipeg is as close to Fort William as The Pas is to Hudson bay at Port Nelson, hence they may be compared as radiating points.

A line drawn from Dauphin, Man., in a southwesterly direction passing through Weyburn, Sas., separates the tributary territory. Practically the whole of the province of Manitoba, and about 11,000 square miles of the southeasterly corner of Saskatchewan, is tributary to Winnipeg; the whole of the remaining area of Saskatchewan and Alberta belonging to The Pas. This immense district is equal in area to the states of North and South Dakota, Minnesota, Wisconsin, Nebraska and Iowa, where there is a population of about 10,000,000, and a railway mileage of about 50,000. I think that, square mile to square mile, the fertility of the northwest is at least equal to the states named.

Assuming that the line is to be worked for all that is possible to be done. The grades are 0.4 or 21 feet to the mile. All trains are fully loaded and composed of 40 ton pay load cars; and locomotives of the Mallet articulated compound type are to be used with a hauling power of at least 4,000 tons of pay load. Thirty-two (32) trains per day is about the capacity of a single track—better than this has been done, but it is enough.

Sixteen (16) trains loaded=64,000 tons per day—making allowance for accidents and delays—say for 30 working days we get 1,930,000 tons, or 64,000,000 bushels of wheat.

I assume that ships can be secured wherever there is sufficient business offered. It is apparent that at least nine per day would need to be loaded, or say 135 to 140, to do the business—allowing 2 trips to each ship. Any additional business taken to the bay would have to be stored until the following August—nine months.

Other sources of traffic possible to the line are: the exportation of cattle; the usual package freight to and from Europe; and the possibility of developing a reasonably large import coal trade. I believe it is practicable to lay down coal at Port Nelson from Nova Scotia at a cost not exceeding \$3.75 per ton. The rail haul say to Sas-

SESSIONAL PAPER No. 20

katoon—as an average point of distribution—need not exceed \$4 per ton, making the cost of the coal \$7.75. At present, I believe, it costs quite \$9 in the same territory.

Equipment for thirty-two (32) trains per day of the character outlined will cost about \$9,000,000; and means the providing of 108 train crews, 150 telegraph operators, 54 gangs of section men, shopmen, round house men, superintendents, train and yard masters—the greater number of whom are not likely to be required once the rush of the season is over. It appears, therefore, to be a difficult proposition for independent operation, and would seem to require to be worked by one of the large corporations, so that the men and rolling stock could be utilized the whole year. There is in Canada only one locomotive of the type described, and by using the largest freight engines now operated on western roads the train load would be reduced one-half—and the capacity of the road in like measure.

It is apparent, however, that under any circumstances grain may be placed at the Hudson bay on board ship as cheaply as at Fort William, hence the saving possible is 5 cents per bushel, assuming that insurance and freight rates are equal at Montreal and Port Nelson. Captain Bernier is of the opinion that it is unsafe to be caught in the vicinity of the Fox channel with a steamship of ordinary construction any later than October 15.

Mr. Armstrong's report will be found attached hereto.

I have the honour to be, sir,

Yours faithfully,

M. J. BUTLER,

Deputy Minister and Chief Engineer.

Mr M. J. BUTLER,
Deputy Minister and Chief Engineer,
Department of Railways and Canals,
Ottawa.

DEAR SIR,—I herewith beg to submit a general report on the results of the preliminary surveys in connection with the proposed railway to Hudson bay, and undertaken in accordance with your letter of instructions, dated July 10, 1908.

ORGANIZATION.

Four parties were organized and started to work at various points between The Pas and Fort Churchill, dividing the territory to be covered into sections of approximately 120 miles each. Another small party, No. 5, was organized for the purpose of exploratory work whereby much general information was obtained, and the running of much unnecessary lines by the regular parties avoided.

During the progress of the work more information about the Nelson river was obtained, and seemed to justify an examination of that route, as well as the route to Churchill. On the completion of their exploratory work, Party No. 5 was re-organized and allotted to this work, and to a preliminary survey of the harbour at the mouth of the Nelson river. In order that no hitch might occur in the transportation and supply arrangements, Mr. E. H. Drury was established at Split lake as divisional engineer, supervising the work of Parties 3, 4 and 5.

Parties 1 and 2 were despatched from Winnipeg on August 30, to The Pas, going by rail to Prince Albert and thence by Hudson Bay Company's steamers down the Saskatchewan river to their destination. Party No. 1 commenced work on September 14, about 40 miles north of The Pas. Party No. 2, owing to the long and difficult route adopted, did not arrive on their work until November 7, the last of the five parties to commence work. Since then we have discovered a much easier and quicker route to the work, and could do the same work now in less than half the time and for half the expense.

Parties 3, 4 and 5 left Winnipeg on September 19, going by way of Lake Winnipeg and the Nelson river to their destination. Party No. 5 commenced work on October 5, No. 3 on October 24, and No. 4 on October 29.

Parties 1 and 2 completed their work and were disbanded on March 11 and 24, respectively. Party No. 3 and the Split Lake Division office was disbanded on April 6.

Parties No. 4 and 5 completed their work on the railway lines about April 1, and were thereafter engaged on the harbour surveys, No. 5 completing their work and disbanding on July 6, and No. 4 on August 13.

The health of the parties throughout the work was uniformly good; not a single serious accident or case of sickness being recorded on all the work.

COST.

The total cost of the work, including all returns to date of September 30, with outstanding accounts yet to be settled, totals \$130,716.09. A few of the outstanding accounts are in process of adjustment, but the final result will not differ materially from this total.

1 GEORGE V., A. 1911

Since commencing location, supplies and equipment to the extent of \$5,952.34 have been taken over for location work, leaving \$124,763.75 to charge against preliminary work, and distributed as follows: Survey of railway routes, \$101,123.75; survey of harbours, \$23,640. This cost is largely due to the extra expense of transportation through such a country, a considerable portion being due to the fact that the work on the Nelson route was not taken up until well on in February, thus obliging us to pay winter rates for the transport of provisions along this route. The experience of the Canadian Northern and Grand Trunk Pacific seems to indicate that it usually costs from \$300 to \$500 per mile to secure a final location in such country as this. During the progress of our work much information has been gained relative to transportation routes, which will enable us to greatly reduce the cost of supplies in future, and although the preliminary work has seemed costly I do not expect that the cost of the final location will be greater than that usually obtained in such countries.

During the time when all parties were at work there was an average of about 110 on the pay-rolls.

METHODS USED.

The surveys were made in the usual way with transit level and chain. Contour topography was taken over the greater portion of the line, as well as all lakes, swamps and other points of interest in the vicinity of the line. In order to illustrate more fully the class of information obtained by the engineers in the field a plan and profile of a representative portion of the line are being forwarded to you. This will probably show more clearly than any description could do, the character of the information upon which the estimate of the cost of construction has been based. This plan is exactly as turned in by the engineer in the field.

In making up the estimate different methods of dealing with stream crossings were frequently adopted, this plan only being intended to illustrate the information obtained.

NATURAL RESOURCES.

The timber along the proposed route to Churchill has been described in the preliminary report of February 15, 1909. The work on the Nelson route since then has, however, developed the probability that the timber which may be available by the opening of that route is of much greater value than usually supposed. The whole country is full of lakes and streams, and different parties passing through by different routes have found most of the lakes and streams bordered by areas of timber of commercial value. These areas vary in size from a few acres to some as large as forty or fifty square miles, and in the aggregate totaling several thousand square miles. We have no means of making an approximate estimate of the quantities, as large areas though tributary to the railway route lie far to one side or other of any probable location of the line, and consequently were not visited by the engineers. However, the information obtained is of such a nature as to warrant the recommendation that a thorough examination be made of the timber resources of this territory by competent timber cruisers.

AGRICULTURAL LANDS AND MINERALS.

No further information can be added to that already given in the report of February 15. It will be remembered that the greater portion of this work was completed during the winter months when the ground was frozen and covered with snow, rendering it impossible to obtain much information on these subjects.

It may be remarked here, however, that although these lands may require more or less improvement in the way of clearing and drainage, the fact that they are situated

SESSIONAL PAPER No. 20

within a few hours' run of an ocean port may give to these lands a value not hitherto thought of, and may cause a more rapid settlement than expected. At the inland Hudson bay posts all kinds of grain and vegetables have been grown successfully for years. A study of the records of the Meteorological Office indicates that the climate is quite favourable for farming operations as that of Prince Albert. Our own records extending only from November to March simply corroborate the general impression that it is very cold during the winter months, but furnish no information as to the conditions during the summer, or growing season.

Our definite knowledge of minerals is limited to limestone and marble. The limestone occurs in the southern portion of the line a short distance from The Pas, in unlimited quantities favourable for quarrying, and will probably prove the future source of supply for the greater part of the province of Saskatchewan and Manitoba.

Marble of a very high grade occurs on Marble island in Hudson bay, and is also found of a fair quality at Fort Churchill.

Iron ores, gold, silver, galena, mica and other minerals have been discovered by the Geological Survey at various localities on the bay, all of which are fully described in the reports of that department.

Various specimens of the precious metals have been shown to our engineers, but their origin was preserved in so much mystery that they could not be treated as evidence of the existence of the metal in that territory and might have been used with equal effect to demonstrate the richness of a deposit in Colorado or Johannesburg.

FISH.

All the evidence obtainable points to the existence of various varieties of fish of good quality in Hudson bay in large quantities. This should be of great value to the west, as fresh fish can be laid down in twenty-four hours at all the main centres in Manitoba and Saskatchewan. This will largely be an express traffic, and according to recent investigations of the Railway Commission this seems to be a remunerative business, and should prove a source of great profit to the Hudson Bay railway.

STREAMS AND WATERWAYS.

The principal waterways of the country traversed by the surveys were described in the report of February 15. Since then a general map has been prepared showing, in addition to the streams described, the extension of these waterways throughout the west, together with the railway system as it exists at present. The map shows the principal waterways which are susceptible of development for purposes of navigation, and shows the extent to which they may become feeders of the Hudson Bay railway. These waterways have all been recently navigated by vessels of considerable size. During the summer of 1908 the steamer *Alberta* made the trip from Edmonton to Winnipeg where she is now engaged in the excursion business. During the past summer a good sized steamer made a return trip on the South Saskatchewan between Medicine Hat and Saskatoon, and in the month of June a number of business men from Grand Forks, North Dakota, made a successful excursion trip from Grand Forks to Winnipeg and return via the Red river.

An approximate estimate of the discharge of the Nelson river gave results as follows:—No. 1, 156,869 cu. ft. per second; No. 2, 149,693 cu. ft. per second.

In the first measurement the velocity was obtained by means of floats, and in the second by means of a current meter borrowed from the Department of Public Works.

Below this, several large streams enter, and many small ones, so that the discharge at Port Nelson is probably not far from 200,000 cu. ft. per second. The dis-

1 GEORGE V., A. 1911

charge of the Churchill river has been roughly estimated as 40,000 cu. ft. per second at low water.

On the general map is also shown a proposed extension of the railway line southerly to connect with the existing railways.

One projection is shown along the Carrot river from The Pas to Saskatoon. At Saskatoon connection is made with lines leading to most of the principal centres of trade in the provinces of Saskatchewan and Alberta.

This line will also open up a very fertile country along the Carrot river and give an outlet for valuable timber areas along the northern slope of the Pasquia Hills. This line will be through open prairie country and a first-class road can be built for \$20,000 per mile.

Another suggested extension is from the southern terminus of the Canadian Northern Railway's Pas branch to Yorkton, giving communication with Regina and other centres in eastern Saskatchewan and western Manitoba. This line will also be prairie work and should not exceed \$20,000 per mile for a good road.

THE CHURCHILL ROUTE.

The first section of approximately 120 miles is through a comparatively level or smooth country, affording easy grades and cheap construction. The territory is underlaid with limestone in horizontal or flat beds, rarely rising above the general level to any extent, and when it does so it is in a way as to be easily avoided by the railway line. Owing to this condition the rock cutting on this section will be practically nil.

The balance of the grading on this section will largely be in clay loam material, probably 70 per cent, the remainder being of sand, gravel and swamp or muskeg. It may be remarked here that what is called muskeg in this country is not a true muskeg, but would be more properly defined as swamp. Good bottom is usually obtained at a depth of three or four feet, and very seldom exceeds 7 or 8 feet.

The stream crossings will be light, with the exception of the Saskatchewan river crossing. Frog river, the connection between Moose lake and Cormorant lake, is a navigable stream for small boats, and as we cross it very low down it will probably be necessary to provide a swing span of some kind. As a fifty or sixty foot opening will do, the sum required will not be large.

Since taking up the location work it has been found possible to practically eliminate the hump shown at mile 25 on the condensed profile, and with good prospects of materially improving the hump at mile 55.

The second section of 120 miles is through granite country, and although the same general characteristics are preserved the granite ridges are more abrupt, and will force us to take some rock cuttings, although fortunately most of them will be small. All the streams and lakes throughout these two sections possess more or less valuable timber of which the accompanying photograph is an illustration.

From the 240th mile to the 360th mile we have the roughest country encountered, and considerable exploratory and extra preliminary work has failed to find any better route than that adopted. In this territory is included the rise between the basin of the Nelson river and that of the Churchill. The actual height of the summit between the two rivers is not very great, but both approaching and leaving this summit a heavily rolling or undulating country is encountered, and requires the development of a considerable length of line, and the introduction of much curvature to secure the grades adopted, at a reasonable cost. On the Nelson river side of this ridge a considerable amount of heavy work will be necessary, but on the Churchill slope although the yardage to be moved will be heavy it is not anticipated that much rock will be encountered.

SESSIONAL PAPER No. 20

The fourth section, extending from the 36th mile to Fort Churchill, will require the moving of only a light yardage, but the northern 70 miles being over the tundra, or barren lands, may prove to be a more expensive piece of work than the profile would indicate. Mr. W. J. Clifford made a trip through this section in the month of June for the purpose of examining it after the snow had disappeared. He does not anticipate any serious difficulty or danger in constructing this section, the chief drawback being from the fact that although the material is such as would usually be classified as common excavation, so much frost will be encountered that probably a considerably greater price will have to be paid for its handling than for common excavation.

The timber over sections 3 and 4 is not of very much value. A few ties and some timber for temporary work may be obtained, but only in small quantities.

The bridging on the whole will average light, the only two bridges of great importance being the Saskatchewan crossing and the Deer river crossing about mile 350.

As intimated in the notes on the estimates, a considerable number of small pile structures have been designed for the purpose of furnishing ample waterway until a sufficient observation of the stream will better enable us to specify a suitable permanent structure.

The curvature as estimated from the projected location averages $9^{\circ} 55'$ per mile.

The grades adopted, viz.: .4 northbound and .6 southbound, have been obtained without great effort and although some development was required on section 3, the ease with which they were obtained on the remaining sections seems to justify their use all through for the sake of uniform grades on all engine divisions.

THE NELSON ROUTE.

The route selected towards Port Nelson follows the Churchill route for some 150 miles or thereabouts, the description of which has been given. Unlike the Churchill route, the Nelson route does not resolve itself into natural divisions each presenting different characteristics peculiar to itself, but throughout maintains a generally uniform appearance, so that the description given for the first division of the Churchill route may be applied in a general way to the whole of the Nelson route. It is not expected that the rock work will amount to very much, the major portion of the grading being in clay loam with smaller percentages of sand, gravel and swamp. The tundra is not encountered on this route, the whole line being through timber not appreciably different from that described on the first 200 miles of the Churchill route. It may be mentioned here that sand and gravel has been found sufficiently often to justify our belief that ballast may be had without unduly long hauls, except on the northern 70 or 80 miles of the Churchill route. It may be found there, but as yet we have not noted it. The curvature has been estimated to average about $5^{\circ} 30'$ per mile over this route.

A grade of .4 both ways may be had on this route.

The adoption of .6 against southbound traffic would not help alignment nor save grading.

There are three important bridges on the Nelson route, viz.: the Saskatchewan, the crossing of the Nelson at Manitou rapids, and the second or lower crossing of the Nelson. The Manitou crossing of the Nelson is a particularly favourable crossing, the river here being confined in one channel of less than 350 feet in width, the banks being of merely perpendicular granite rock and so situated as to make it possible to choose almost any desired elevation between fifty and one hundred feet above the water. Water here is of course very deep, and has a current of from six to eight miles per hour, making it necessary to cross with either a single span or an arch. The lower crossing will be much longer, probably 3,000 feet, from grade to grade, with a waterway of 1,500 feet with the grade line approximately 80 feet above the water. The

1 GEORGE V., A. 1911

balance of the bridging will be light, trestles being sufficient in all cases with the exception of Frog river.

HARBOUR WORK.

The plans and reports of the terminal work having already been sent you, it will only be necessary to treat briefly of the object with which this work was undertaken.

It has been endeavoured to treat the subject not as a problem by itself, relating only to the sheltering of ships, but to treat it as one feature only of the problem of the Hudson bay route as a whole. To this end it was necessary to consider and obtain all possible information relating to roadsteads, entrance channels, harbourage, docks, facilities for providing railway terminals and other works necessary for the transshipment of goods, length of season open to navigation, ice condition, and possible future inland communication by improvements to existing waterways, and to the feasibility of approach by the proposed railway. It was realized that the importance of the port and the Hudson bay route as a whole depended in no small degree on the efficiency of the rail communication inland.

In accordance with the above, surveys were made of the harbours at the mouths of both the Churchill and Nelson rivers, the results of which have been sent forward to you.

The results at Nelson seem to justify the recommendation that a further appropriation for an accurate survey of that port be made before it is rejected as a terminus for the Hudson Bay railway.

(Sgd.) JOHN ARMSTRONG,
Chief Engineer, Hudson Bay Ry. Surveys

THE ESTIMATE.

CLEARING.

The estimate is based on right of way 150 feet wide with the necessary allowances added for sidings and terminals. A few miles of heavy clearing will be encountered, but the average over the whole line will be comparatively light. The first 200 miles will be through spruce and jack pine with a small proportion of poplar and tamarack. The northern 100 miles of the Churchill route will have practically no clearing. The northern 200 miles of the Nelson route will be through spruce with a small proportion of jack pine and tamarack and will probably have from 12 to 15 acres per mile to clear. A large portion of the clearing on both routes could probably be done for \$25 or \$30 per acre, but owing to the heavier clearing encountered at intervals an average price of \$40 per acre has been decided upon. This should be ample to cover whatever close cutting is required as well.

GRUBBING.

This item is somewhat difficult to estimate without an actual location profile. One and a half acres per mile has been used for 400 miles of both lines, using the price \$100 per acre which seems to be the price bid by contractors almost universally. The work will class as light, a large portion of it being such as can be done with heavy grading or breaking ploughs.

SESSIONAL PAPER No. 20

GRADING.

This being the chief item in the estimate, considerable care has been taken with it. The quantities submitted are taken from the projected profiles, and the greater portion of these being very close to the preliminary lines, should be as accurate as is possible without cross sections. Engineers in the field were instructed to take out these quantities liberally, and the estimates submitted by them are probably at least 10 per cent in excess of what the profile actually shows.

In addition to this, 25 per cent has been added to all quantities by this office, to cover drainage, settlement, &c., so that the quantities here reported are approximately 35 per cent in excess of what the profile actually shows. This should provide for all possible contingencies, especially as one of the main causes of swelling of estimates, viz.: road and farm crossings is not met with here. In addition, 1,100,000 cubic yards are added to Churchill route and 900,000 cubic yards added to Nelson route for sidings and terminals. At the present time not one single road or farm crossing exists between The Pas and Hudson bay. The prices adopted, \$1.80 for solid rock, 65 cents for loose rock and 30 cents for earth, approximate closely to the prices obtained on the Transcontinental railway in what may be termed similar country, viz.: districts C. D. and E. The price, 30 cents for earth, is perhaps somewhat lower than Transcontinental Railway prices, but I am confident that the contractor who bids over 30 cents on this work will have no chance to get the contract. The portion from The Pas to Hudson Bay Junction of the Canadian Northern railway, a much worse proposition than any we have encountered, was done at a profit, for 25 cents during the high wage period of 1906 and 1907.

These prices quoted are of course the average. In making up the estimate the prices used on the northern portion were, for solid rock \$2, loose rock 75 cents and common excavation and borrow 50 cents. The summation of the quantities and cost on the different sections resulted in the above quoted averages of prices which have been used in this estimate. On sections 1 and 2 the engineers did not estimate any loose rock. For this reason the 25 per cent added to their common excavation has been classified as loose rock. The classification made has been based on the Transcontinental Railway specification. The accessibility of the work will not be so difficult as supposed. The first section has rail communication to The Pas with a fairly good steamboat connection already established to Moose lake, 50 miles along the route. The construction of wagon or sleigh roads from this point on will be easy. The second section, with communication from Winnipeg via Lake Winnipeg and the Nelson river, can be made quite adequate for the comparatively small sum of fifteen or twenty thousand dollars. In case the Churchill route is selected this will be more expensive. The third section may be supplied from Churchill or Nelson if so desired. In the case of Nelson good water connection being possible for 60 or 70 miles inland. In case the Churchill route is selected probably steam shovels will be required on a section of about 35 miles near Split lake. These water routes suggested are not recommended for the transport of such plant as this, but will be useful for all lighter supplies and materials. On the Nelson route no steam shovel work is anticipated, except blasting—the plant for which will follow along behind the track.

TIMBER.

On the Churchill route a sufficient amount of timber for ties, piles, and temporary work may be had convenient to the line on the southern portion as far as the 240th mile, but beyond this point none can be had. For this reason piling has been quoted as 50 cents per foot on the Churchill route, as against 40 cents on the Nelson route, where timber may be had all the way to the bay. The quantities estimated for piling do not look very large, but it is to be remembered that all our stream crossings are very

1 GEORGE V., A. 1911

low, thus cutting down the length of the piles and also reducing the length of bridging or number of bents required. With the exception of the Saskatchewan river crossing and the crossing of the Deer river on the Churchill route all waterways have been estimated for, as temporary wooden structures.

On the Nelson route the Saskatchewan crossing and the two crossings of the Nelson are to be steel and concrete, all others wood. Our expedition is practically the first which has obtained definite and specific information of the country through which it is proposed to run, but inasmuch as practically all the work was done in the winter months with everything frozen solid and under three or four feet of snow it is perhaps too much to expect that a proper estimate of water openings could be made. For this reason temporary wooden structures of such a nature as will suffice for a period of from 7 to 10 years has been estimated for.

During this period close observation of the waterways will enable us to specify with more certainty the style and size of opening required. With this closer knowledge of what is required, and with the increased facilities for handling cement and other materials for permanent structures, the final cost will probably be less than if an attempt were made to construct them now.

Cedar timber for culverts may be had f.o.b. cars in Winnipeg for \$18 and \$20 per thousand, and with freight added is worth \$22 to \$25 at The Pas. The price of \$40 thus leaving from \$15 to \$18 for framing and contingencies, and it is probably high enough to cover the cost of what little excavation may be needed. If timber native to the country can be used, such as spruce and tamarack, a considerable saving may be effected. My own experience has been that such timber is quite good for seven years, and I know of some spruce culverts built twelve years ago and still good.

The timber for trusses and stringers being imported from British Columbia will be more expensive, but will be approximately the same for both lines.

IRON.

An average of 5 cents per pound has been adopted, based on Winnipeg prices, plus freight to The Pas.

TRACK MATERIAL.

Steel rails of 60 pounds per yard are proposed. Much of the material of which the roadbed will be composed is of a peaty nature and some settlement may be expected.

Under such circumstances it is probable that a better track can be maintained with the 60 pound rail than with the 80 pound rail. Prices are based on Fort William prices plus freight to The Pas, wheelage charges, &c., and an allowance of about \$3 per ton for contingencies.

TIES.

Estimated at 3,000 per mile for all tracks. Being obtainable at all points on the Nelson route 40 cents each has been adopted, but none being obtainable beyond Split lake on the Churchill route, 50 cents has been used for that estimate.

SWITCHES.

In the estimate for switches is included split switch points, spring frogs, switch stands, lamps, and an allowance of \$15 to cover the difference between common ties and switch ties at each switch.

SESSIONAL PAPER No. 20

TRACK LAYING.

The prices on the Transcontinental railway vary from \$400 per mile to \$600 for laying the 80 pound rail there used, so that \$500 per mile should be ample price for laying the lighter 60 pound rail proposed for this line.

BALLASTING.

Indications are that we will not find it necessary to exceed a maximum haul of 25 miles except in the northern 100 miles of the Churchill route, where a 50 mile haul may be encountered. However, as ballast may be found closer, \$1,000 has been estimated for both routes and includes side tracks and terminals as well as main tracks.

WATER TANKS.

This question has been fully looked into, and it is found, from the Great Northern Railway experience, that \$5,000 should build a tank of 50,000 gallons capacity, of the most approved pattern and as nearly frost proof as has yet been devised; including machinery and heating apparatus inside the tank. As water is very plentiful in our country the intake and piping will not be expensive.

In addition to the above items discussed here there is left for you to estimate upon, station houses and terminal structures; shops, docks and elevators.

In the estimate a side track of 5,000 feet was assumed every eight miles, with a station house, water tank, and accommodation for two section crews at every alternate one. This leaves each section crew the somewhat lengthy section of 8 miles and also situated at one end of the section. It has, however, the advantage of always having the section crew where the superintendent or road-master can always communicate quickly by telegraph or telephone.

Passenger traffic, express traffic and small package freight for a number of years at any rate cannot be very large, so that the accommodation in the station may be cut to a minimum. Out-going local freight will consist largely of timber which requires no shelter, and incoming local freight will be mostly for lumber camps, the most bulky articles of which, such as hay, oats, flour, pork, &c., if necessary can be better accommodated in a separate warehouse of much cheaper construction. Thus the accommodation of our stations will be principally limited to the requirements of the railway agent. A few years after the opening of the railway the principal centres of development will have become apparent, and more suitable station and freight sheds erected as required.

TERMINALS.

The Churchill route, 477 miles approximately, is too long for three engine divisions in this hard winter climate. The Nelson route, 410 miles, can probably be handled by three train divisions, as owing to the better grades the 135 mile Nelson division will not be a harder task for the engine than the 120 mile in Churchill division. On the Nelson route this will mean four sets of buildings, and on the Churchill route five sets.

CHURCHILL ROUTE.

| | Unit. | Quantity. | Rate. | | Amount. | |
|--------------------------------------|-------------|-----------|-------|------|------------|------|
| | | | \$ | cts. | \$ | cts. |
| Clearing | Acre | 7,000 | 40 | 00 | 280,000 | 00 |
| Grubbing | Acre | 600 | 100 | 00 | 60,000 | 00 |
| Grading | C. yd. | 9,740,000 | 0 | 50 | 4,870,000 | 00 |
| Piling | L. ft. | 180,000 | 0 | 50 | 90,000 | 00 |
| Timber in culverts | B. M. | 3,250,000 | 40 | 00 | 130,000 | 00 |
| Timber in bridges and trestles | B. M. | 4,000,000 | 55 | 00 | 220,000 | 00 |
| Iron in bridges and culverts | Lb. | 2,600,000 | 0 | 05 | 130,000 | 00 |
| Steel rails | Ton | 54,000 | 40 | 00 | 2,160,000 | 00 |
| | | 18,000 | | | 720,000 | 00 |
| Angle bars | Ton | 2,680 | 50 | 00 | 134,000 | 00 |
| | | 900 | | | 45,000 | 00 |
| Bolts and nuts | Ton | 454 | 80 | 00 | 36,320 | 00 |
| Spikes | Ton | 2,040 | 65 | 00 | 132,600 | 00 |
| Ties | Each | 1,700,000 | 0 | 50 | 850,000 | 00 |
| Track-laying | Mile. | 567 | 500 | 00 | 283,500 | 00 |
| Switches (complete) | Set | 300 | 250 | 00 | 75,000 | 00 |
| Water tanks | Each | 30 | 5,000 | 00 | 150,000 | 00 |
| Steel bridges, steel | Lb. | 3,700,000 | 0 | 05 | 185,000 | 00 |
| concrete | C. yd. | 6,000 | 15 | 00 | 90,000 | 00 |
| Ballasting | Mile. | 567 | 1,000 | 00 | 567,000 | 00 |
| Telegraph line | Mile. | 477 | 300 | 00 | 143,100 | 00 |
| Total | | | | | 10,586,520 | 00 |
| Increase due to 80 lb. rail | | | | | 765,000 | 00 |
| | | | | | 11,351,520 | 00 |

| | |
|---|-----------------|
| Station buildings, telegraph stations, section houses, round houses, locomotive and car repair shops, power plant, tools, warehouse at port, coal unloading plant | \$1,700,000 00 |
| Two 4,000,000 bush. cap. fire proof elevators | 4,000,000 00 |
| Yard facility at terminals | 320,000 00 |
| Engineering, law costs and contingencies, 10% | 1,737,152 00 |
| | \$7,757,152 00 |
| Harbour work, piers, dredging, exclusive of lighthouse and buoys | \$6,675,000 00 |
| | \$19,108,672 00 |

SESSIONAL PAPER No. 20

NELSON ROUTE.

| | Rate. | Quantity. | Amount. |
|---------------------------------------|----------|-----------|-----------|
| | \$ cts. | | \$ |
| Clearing..... Acres. | 40 00 | 7,000 | 280,000 |
| Grubbing..... " | 100 00 | 600 | 60,000 |
| Grading..... Cu. ft. | 0 40 | 7,500,000 | 3,000,000 |
| Piling..... L. ft. | 0 40 | 200,000 | 80,000 |
| Timber in culverts..... M. ft., B. M. | 40 00 | 2,800,000 | 112,000 |
| Timber in bridges and trestles..... " | 55 00 | 3,200,000 | 176,000 |
| Iron in bridges and culverts..... Lb. | 0 05 | 2,100,000 | 105,000 |
| Steel rails..... Ton. | 40 00 | 45,500 | 1,820,000 |
| Angle bars..... } | 50 00 { | 15,000 | 608,000 |
| | | 2,280 | 114,000 |
| | | 800 | 40,000 |
| Bolts and nuts..... " | 80 00 | 390 | 31,200 |
| Spikes..... " | 65 00 | 1,740 | 113,100 |
| Ties..... Each. | 0 40 | 1,450,000 | 580,000 |
| Switches..... Set. | 250 00 | 240 | 60,000 |
| Track-laying..... Mile. | 500 00 | 483 | 241,500 |
| Water tanks..... Each. | 5,000 00 | 25 | 125,000 |
| Telegraph lines..... Mile. | 300 00 | 410 | 123,000 |
| Bridges, steel..... Lb. | 0 05 | 9,400,000 | 650,000 |
| " concrete..... Cu. yds. | 15 00 | 12,000 | 180,000 |
| Ballasting..... Mile. | 1,000 00 | 483 | 483,000 |
| Total..... | | | 8,333,800 |
| Increase due to 80 lb. rails..... | | | 648,000 |
| | | | 8,981,800 |

| | | | |
|--|----|-----------|--------------|
| Station, buildings, telegraph cabins, section houses, round houses, repair shops locomotive and car, tools, power plant, warehouse at port, coaling plant..... | \$ | 1,647,600 | |
| Two 4,000,000 bush. fire proof elevators..... | | 4,000,000 | |
| Yard facility at terminals..... | | 320,000 | |
| Law costs and contingencies. Engineering, 10 per cent..... | | 1,476,940 | |
| | | 7,444,540 | |
| Harbour work, piers and dredging, exclusive of lighthouse and buoying..... | \$ | 5,065,000 | |
| | | | \$61,426,340 |

1 GEORGE V., A. 1911

FORT CHURCHILL.

THE CHART.

Two charts, or maps, are being furnished with this report. One on a scale of 4,000 feet to 1 inch for purposes of comparison with Port Nelson, and a large one on a scale of 1,000 feet to 1 inch, as a working map. On this larger map are shown also 10 feet contours and other notes in more detail than was possible on the smaller scale. The soundings are reduced to low water level.

GENERAL DESCRIPTION.

Fort Churchill is at the mouth of the Churchill river where the river passes through a large tidal flat or lagoon mostly dry at low tide except near the outlet to the sea. The lagoon is surrounded by hills consisting of rock at the sea outlet and of sand and gravel further up the river. The only available situation for docks at present is out near Cape Merry, with the railway terminals from two to three miles up stream, and the townsite from three to five miles up stream. Another townsite is available on the west side, but it would be somewhat difficult to get railway and dock sites.

There is no possibility of improving the Churchill river so as to give inland communication by water owing to its shallowness over its many wide and frequent rapids. The neighbourhood of Fort Churchill is practically destitute of all forest growth for miles in all directions, the vegetation being restricted to mosses and patches of coarse grasses along the edges of the water areas.

The main fresh water supply is obtained from the numerous small lakes in the neighbourhood, and is of excellent quality. The tidal flats are thickly strewn with boulders, some so large as to be visible above high water.

TIDES AND CURRENTS.

The main current in the harbour is along the indicated channel of the Churchill river, being approximately down the centre of the lagoon, but striking more against the eastern side towards the harbour mouth. With the ebb tide the current attains a velocity of from six to eight miles per hour, creating a somewhat difficult entrance for low-powered ships. The local pilots prefer to bring in their ships with the incoming tides.

It is quite useless for anything but a steam vessel to attempt the entrance at any other time. The current with the incoming tide is much less, probably not exceeding 4 miles per hour. The highest tide observed was 13½ feet, and the lowest 8 feet, both probably being subject to modification with a longer series of observations. The water is always more or less salt near the entrance. At low tide fresh water may be obtained in the Churchill channel opposite the Hudson Bay Company's post, but when the tide is in this cannot be done.

ICE CONDITIONS.

The harbour usually freezes over about November 15. The open sea also freezes over during the winter four or five miles out from Churchill. The usual date for the opening of the harbour is about June 19. This last spring the harbour opened on June 7, or about 10 days earlier than usual. The ice lay off the coast and harbour this year, preventing the return of the survey party until July 13, when a start was made for York.

SESSIONAL PAPER No. 20

Five days more were lost by the ice pack off Cape Churchill extending about thirty miles out to sea, the boat crew declining to venture outside of this. The boat in use was only a small sailing coast boat not well adapted to ice work. Probably no serious difficulty would have been experienced by a steamer making Churchill within a few days of the opening up of the harbour on June 7. At intervals between June 7 and July 13, ice would be drifted back into the harbour by north winds. This ice floating up and down the harbour on the strong currents existing there constitutes a serious inconvenience and danger to ships at anchor and to docks and other works which may be constructed along the shore. The harbour has been reported on occasions to have been blocked by ice as late as August owing to long continued north winds. This liability of the harbour to being filled with loose heavy ice drifting up and down with the strong currents will need to be seriously considered in choosing the type of docks to be built here. As shown on the chart, the direction of the current tends to throw the drifting ice against the east shore, the only available place for docks at the present time. The ice, however, does not jam here very much but is swept on out by the strong current. Jams more frequently occur on the west side between the police barracks and Cockrill's Point.

ANCHORAGE.

At the present time very little shelter can be had at low tide by any ship drawing over 18 or 20 feet of water. Space to accommodate two or three ships of this size might be had, but anything larger would have to anchor almost in front of the entrance, which, being about three-quarters of a mile, allows the full force of the seas to be felt. The seas enter the harbour with sufficient force to cause a heavy swell to be felt throughout the harbour; in fact it is reported that at times it is impossible for the smaller boats to cross the harbour for two or three days at a time. The bottom consisting of mud, affords a fairly good holding ground for anchors.

MATERIAL.

The material forming the harbour bottom is mud, thickly strewn with boulders of all sizes, and is probably a deposit from the Churchill river.

Excavating for ships berths close inshore to avoid the heavy drift ice will probably encounter solid rock, as the solid rock in several places runs to the water edge.

MATERIALS FOR CONSTRUCTION.

Stone for construction purposes is very plentiful. Marble if you like to use it. All timber will have to be brought in either by rail or by ship.

DEFENCE.

Fort Churchill being practically upon the open sea can only be defended by strong forts and batteries placed in the immediate neighbourhood of the port itself.

PORT NELSON.

THE CHART.

The chart or map accompanying this report has been drawn to a scale of 4,000 feet to 1 inch, as being best adapted for the purpose of giving a comprehensive view of the general situation at Port Nelson. Lines are shown on the chart inclosing the portion which was found open all last season; other lines showing the portion where the ice did not attain a greater thickness than 10 inches. The shore line is plotted in

1 GEORGE V., A. 1911

from a traverse of the shores. Wherever the ice was of sufficient strength the sounding was done through holes, the method of locating being indicated on the chart. The soundings in the open water portion were taken from a boat hired from the Hudson Bay Company at York Factory, and were taken in May and June after the ice had gone out. This portion of the work was accomplished under great difficulties, as only five small buoys could be obtained to mark ten miles of river.

The boat, which was the best obtainable, was the usual coast boat of very shallow draft and clumsy rig, but endowed with special qualities in the matter of drifting.

Owing to this propensity and to the fact that the small buoys were not visible from one to the other, some difficulty was experienced in keeping the proper course. However, after ten days or two weeks hard work a sufficient amount of information was obtained to enable us to state with certainty that a good channel exists in which a ship drawing 26 feet might safely enter at all stages of the tide. Mr. R. D. Fry, the engineer in charge of the party, believes this chart to be a conservative representation of the actual conditions at Port Nelson, and that more extended surveys with the proper equipment will probably show a more favourable situation.

In order to get the best results it will be necessary to have a good strong boat equipped with power, preferably a good sea-going tug which could be fitted to burn either coal or wood, with a dozen large sized buoys and fifty or sixty smaller ones to mark the channel and points to be sounded.

GENERAL DESCRIPTION.

Port Nelson is at the mouth of the Nelson river, while York Factory is situated at the mouth of the Hayes river, about fifteen or eighteen miles from Port Nelson.

The site at the mouth of the Hayes was chosen by the Hudson Bay Company on account of the better communication with a greater number of inland posts, and also being a much smaller stream was not so difficult to navigate.

A great deal of tracking had to be done on both rivers, and the Hayes being much smaller, offered less trouble in crossing and recrossing to take advantage of paths to tow from. The Nelson river is known locally as the North river, and Port Nelson is named by the British Admiralty as York Roads. Hudson bay vessels crossing to York Factory with supplies anchor about 15 or 20 miles from the post in York Roads. The site of York Factory was not chosen on account of its accessibility from the sea, but entirely on account of the easier communication with inland posts. The Nelson river proper may be said to end at Flamboro Head, which is the approximate limit to which the tide reaches. The estuary is a wide tidal flat with the main channel running approximately down the centre, finally discharging into an open sea abreast of Beacon Point, some 25 miles from Flamboro Head. At Flamboro Head the banks rise sheer from the water edge to a height of 100 to 125 feet. From this point they gradually diminish in height on both sides of the river, until at Sam's creek on the north, and Beacon Point on the south, they are about ten feet above the water. The north shore is of clay with a sufficient fall for drainage and covered with a fair growth of spruce.

A good site for terminals and town may be had in the vicinity of the point marked on the chart. Above this point the banks become higher and much more abrupt.

The south shore is also of clay with a good slope for drainage, but at the present time is covered with a very heavy growth of moss, rendering it very wet. An abundant supply of fresh water may be had either from the Nelson river itself or from various smaller streams and lakes in its vicinity.

TIDES AND CURRENTS.

The main current when the tide is ebbing is along the main channel, the current over the flats running approximately parallel to it. As the water lowers the currents

SESSIONAL PAPER No. 20

over the flats converge more and more upon the main current, till at low tide they are approximately at right angles to and approaching it. On the ebb tide, the current flows at the rate of about $3\frac{1}{2}$ miles per hour, being strongest at the mouth abreast of Beacon Point. Under favourable conditions the current here might rise as high as 4 miles per hour. So great is the discharge of the Nelson river that a perceptible current may be noticed several miles out to sea. With the incoming tide a current of about $2\frac{1}{2}$ miles is obtained.

During the observations, extending from March 20 to June 10, the lowest tide observed was 6.9 feet and the highest 10.9. A longer series of observations will probably establish greater extremes.

The Admiralty charts give ordinary spring tides as ranging from 10 to 14 feet. It is probable, however, that any rise greater than 12 feet may be classed as an occurrence out of the ordinary, and due probably to some particular combination of wind and tide. The tides were found to be very variable, due no doubt to the comparative shallowness of the water. This will require a long series of observations before accurate tide tables can be prepared. This condition is not peculiar to Port Nelson, but applies generally to the tides in Hudson bay.

Salt water is never found above Beacon point except when a very strong easterly gale is blowing with the incoming tide, when a slightly brackish taste may be detected two or three miles above Beacon Point. When the tide is ebbing fresh water is obtained far out to sea. Salt water is never obtained within many miles of the point selected for the terminals.

ICE CONDITIONS.

About the 20th December the river is usually frozen over at Seal Island or Flam-
boro Head. From this time on the ice gradually creeps down the estuary and out from the shore line until the first half of the month of April. About this date the weather moderated to such an extent that the thawing through the day counterbalanced the freezing at night and the ice began to recede towards Flam-
boro Head, the estuary being usually again clear of ice by May 15. The ice is broken up into large floes by the rising tide, and is borne off out to sea by the ebb tide. Owing to the appreciable current of the Nelson river being felt so far out to sea very little of this ice ever drifts back again. Between May 15 and June 1, the upper Nelson ice breaks up and passes down the centre of the estuary in the main channel, usually occupying from 24 to 36 hours on passing out to sea. During last winter no ice jams occurred inside of a line drawn from Beacon point to Sam's creek and a careful scrutiny of the shore line after the snow and ice had disappeared failed to find any trace of its ever doing so. The photos accompanying this report give a fair representation of the usual ice conditions at Nelson. Last winter was a shade colder than average.

The winter of 1878, an exceptionally mild winter, the channel remained open for 40 miles above Flam-
boro Head.

During the freeze up in the fall, a considerable quantity of slush ice comes down from the upper Nelson.

Last winter at Seal island and along the shore the ice attained a thickness of between $4\frac{1}{2}$ and 5 feet. The average thickness at York Factory, where a record has been kept up for many years, seems to be about 4 feet 8 inches.

During the winter more or less ice floats up and down the open channel with the tides, but being very scattered no jams ever occur.

ANCHORAGE.

The anchorage being some nine or ten miles in from the mouth of the channel no serious sea is ever experienced which may cause trouble to anything larger than

1 GEORGE V., A. 1911

canoes or row boats. The condition of the seas at Port Nelson will probably be found to resemble those experienced at Quebec on the St. Lawrence. The bottom is of sufficient stiffness to furnish a secure holding ground for anchors.

MATERIAL.

The material in the flats consists of blue clay with an occasional pocket of coarse sand and gravel with boulders scattered thinly around. In the channel the material is a very stiff blue clay, affording excellent holding ground for anchors. Probably all of the material can be handled by dredges at a very low cost and may be used for reclamation works around the docks. The bottom of the channel is swept clean and bare by the current of the Nelson, and is of so stiff a nature that the small anchor used by the Survey, probably weighing about 200 lbs. would frequently drag for some distance before taking hold. The material on the flats is not so hard on top, but becomes harder as depth is obtained.

MATERIAL FOR CONSTRUCTION.

Stone for the construction of breakwaters and other works may be cheaply obtained. About 75,000 or 100,00 cubic yards may be picked up along the tidal flats in the shape of scattered boulders. Up the Nelson river, about 40 miles above Flam-boro Head is a splendid quarry where any required quantity can be had, and landed cheaply at the works by means of the Nelson river.

Piles in large quantities will be obtainable from various streams entering Nelson river and Hudson bay.

Cement and other material, being brought in by water, should be comparatively cheap.

DEFENCE.

The defence of Nelson from hostile fleets will be comparatively easy, the long comparatively narrow channel approach being easily rendered impregnable by means of sea mines, and rendered otherwise dangerous by the removal or changing of buoys and other channel marks. Battleships which carry the extreme long range guns are of such a draft as to render it somewhat dangerous to manœuvre in less than 45 feet of water thus preventing their closer approach than 15 or 18 miles, a distance considerably greater than the effective range of even the heaviest guns. The lighter ships which might approach closer carry correspondingly lighter guns. The establishment of strong batteries and forts at Sam's creek would seem to be all that is necessary to render Port Nelson absolutely unassailable.

It might be mentioned here in passing the greatly increased difficulty a hostile fleet would have on blockading the Atlantic coast of Canada were the Hudson bay route opened. The fact that ships may enter and leave Port Nelson all the year round is a fact worth remembering when the possibilities of war are considered.

WINNIPEG, September 8, 1909.

(Sgd.) JOHN ARMSTRONG,
Chief Engineer Hudson Bay Railway Surveys.

PART VI

QUEBEC BRIDGE RECONSTRUCTION

REPORT OF CHAIRMAN OF BOARD OF ENGINEERS

DEPARTMENT OF RAILWAYS AND CANALS,

BOARD OF ENGINEERS, QUEBEC BRIDGE,

MONTREAL, Saturday, June 11, 1910.

SIR,—I beg to report progress of work on the reconstruction of the Quebec bridge for the year ending March 31, 1910, as follows:—

Borings.—An extensive series of borings was made during the summer of 1909 to determine the material in the vicinity of the north and south main piers, and the location of the bed rock. Some nineteen borings were made in all. The result of these borings established the fact that on the north side a new pier could be sunk outside of the present main pier and down to bed rock. On the south side the borings indicated that the foundations upon which the present south pier rested was sufficient to support the enlarged south pier and the loads to be superimposed thereon.

Tests.—It was arranged with Professor A. N. Talbot of the University of Illinois, to make a series of tests of nickel steel riveted joints. These tests were carried out with great accuracy, but the result did not show that there was any material advantage in using nickel steel rivets in preference to carbon steel rivets.

Masonry.—The contract for the construction of the piers and abutments of the new Quebec bridge was awarded in December, 1909, to the firm of M. P. & J. T. Davis, of Quebec. Work on this contract has proceeded steadily. Preparatory work of considerable magnitude has been performed at the site of the bridge on the north side of the river, such as building trestles, railway tracks, freight elevator, &c., which will be used for the handling of material and supplies. No work has yet been started on the south side. At Pointe a Pizeau the contractor is constructing the caisson for the new north main pier. This work is proceeding rapidly and the caisson will probably be ready for floating in place about July 1, 1910.

Removal of Debris.—The contract for the removal of the debris was awarded in December, 1909, to the firm of Charles Koenig & Company, of Quebec. The contractor is making fair progress in the removal of this wreckage and up to the end of March had removed some 1,890 tons, or 21 per cent of the entire work. It is expected to have the wreckage in the vicinity of the main pier removed by August 1, 1910, in order to allow the contractor for masonry to start work at this point.

Compression Tests.—A contract has been awarded to the Phoenix Bridge Company of Phoenixville, Pa., for the manufacture and testing of a series of model chords and posts such as will be used in the design of the board now being prepared. Models of eight separate members will be made in duplicate, making sixteen tests in all. The first of these model chords will be ready for testing about May 1, 1910.

Tension Tests.—A contract has been awarded to the Phoenix Bridge Company, of Phoenixville, Pa., for the manufacture and testing of fifty nickel steel full size eyebars, similar to those used in the design of the Quebec bridge now being prepared by the board. The Phoenix Bridge Company will be ready to start the testing of these members about June 1, 1910.

1 GEORGE V., A. 1911

Plans.—The plans of the cantilever design being prepared by the board are progressing rapidly and will be entirely completed and ready for calling for tenders by June 1, 1910. The specifications are also under way and will be ready at that date.

Alternative Plans.—Advertisements were inserted in the newspapers in November, 1909, advising contractors that they would be permitted to submit plans of their own in addition to tendering on the plans prepared by the board. I believe it is the intention of several of the bridge companies to take advantage of the privilege granted by the department.

All of which is respectfully submitted.

(Sgd.)

H. E. VAUTELET,

Chairman and Chief Engineer.

PART VII

REPORTS OF CANAL SUPERINTENDING ENGINEERS AND
OTHERS FOR THE YEAR 1909-10

1. L. S. Pariseau, Acting Superintending Engineer, Quebec Canals.
2. W. A. Stewart, Superintendent, Ontario-St. Lawrence Canals.
3. C. D. Sargent, Resident Engineer, Ontario-St. Lawrence Canals.
4. L. N. Rheaume, Engineer-in-charge, Ontario-St. Lawrence Canals.
5. J. L. Weller, Superintending Engineer, Welland Canal.
6. J. W. LeB. Ross, Superintending Engineer, Sault Ste. Marie Canal.
7. F. B. Fripp, Engineer-in-charge, Sault Ste. Marie Canal.
8. A. T. Phillips, Superintending Engineer, Rideau Canal.
9. J. H. McClellan, Superintendent, Trent Canal.
10. A. J. Grant, Superintending Engineer, Trent Canal.
11. J. H. Devereaux, Lock Master, St. Peter's Canal.

DEPARTMENT OF RAILWAYS AND CANALS,
OFFICE OF THE CHIEF ENGINEER,
OTTAWA, July 1, 1910.

A. W. CAMPBELL, Esq.,
Deputy Minister, Ottawa.

SIR,—I have the honour to transmit herewith the annual reports of the Superintending engineers and superintendents of the several canal works of the Dominion for the fiscal year ending March 31, 1910.

In view of the fact that my appointment as chief engineer of the department was made subsequently to that date, I have considered it best to dispense with commenting in the matter, leaving these reports to speak for themselves.

I have the honour to be, sir,

Your obedient servant,

W. A. BOWDEN,
Chief Engineer.

QUEBEC CANALS.

SUPERINTENDING ENGINEER'S OFFICE,

MONTREAL, June 21, 1910.

W. A. BOWDEN, Esq.,
Chief Engineer, Railways and Canals.
Ottawa.

SIR,—I have the honour to submit herewith the annual report on the works under the charge of the superintending engineer of the Quebec canals, for the fiscal year ended March 31, 1910.

This division comprises the Lachine, the Soulanges and the Beauharnois canals on the St. Lawrence route; the Ste. Anne, the Carillon and Grenville canals on the Ottawa river, and the St. Ours and the Chambly canals on the Richelieu river.

Of these, the Lachine canal is by far the most important on account of its immediate connection with the harbour of Montreal.

I have much pleasure in stating that there was no interruption to navigation on the canals of this division and that the different staffs have performed their respective duties in a very satisfactory manner.

The repairs and renewals on these canals have been done, under the direction of the overseers and superintendents, whereas the works chargeable to capital and income, on the Lachine canal, have been executed under the immediate supervision of Mr. H. R. Lordly, C.E. Works of this kind on the Soulanges, Beauharnois, Ste. Anne, Carillon, Grenville, St. Ours and Chambly canals, have been supervised by the undersigned.

CANAL STORES.

These stores have been well kept and the book-keeping inaugurated by Mr. P. B. Benoit, a few years ago, for keeping track of the materials and tools purchased for the use of the canals, is now better understood by the officials having charge of these stores.

The comptroller's report is to the effect that only a few errors have been made this year and that all materials and tools have been fairly well accounted for.

SURVEYS.

The survey of the Soulanges canal has been continued from St. Dominique to St. Antoine bridge, a distance of six miles. This survey is made in order to get an accurate plan showing all the properties, ditches, roads, culverts, highways and farm bridges, &c., situated on each side of the canal and comprised in the strip of land between the Grand Trunk Railway track and the River St. Lawrence. Levels have also been taken for the purpose of getting the necessary data to deal with complaints of flooding said to have been caused by the construction of the canal.

Soundings have been taken in the Pointe des Cascades bay to find a better channel leading to the protection dock in which are kept the spare lock gates of the Soulanges canal.

DREDGING.

The dredging fleet of the Quebec canals came out of the dry dock, on May 4, 1909, and after one month's work cleaning the bottom of the Lachine canal at Cote St. Paul, Rockfield and at Black Bridge, it was taken to the Soulanges canal, to deepen and straighten the channel between the lower entrance of the canal and the gate protection dock.

1 GEORGE V., A. 1911

About 8,000 yards of material were taken out of the channel and deposited on the shores of the Cascades bay, in order to protect them against the erosive action of the waves.

From Soulanges, the fleet went to Grenville and worked at cleaning around the locks during the whole month of July.

In August and September the dredge was kept busy at deepening and widening the lower and upper entrances of the St. Ours lock. It then came back to Montreal and continued cleaning the canal prism above lock No. 2 and the side basins off the north side of basin No. 2, until the end of the season.

REPAIRS TO DREDGING FLEET.

Two of the vessels have met with serious mishaps during the year. Tug *Frank Perew* broke her propeller wheel while working at Grenville, and the steam derrick broke her boom and her A frame in an attempt to raise an old sunken barge out of the Lachine canal upper entrance. Nearly three thousand (\$3,000) dollars were expended in repairing the damages caused by these accidents.

During the winter the machinery of the steam derrick has been considerably improved and is now fitted to work a clam shell. The old wooden frame on which the machinery rested was replaced by a solid cast iron one and new friction clutches were installed at the place of the positive 'embrayages.'

In addition to the above, the other vessels of the dredging fleet were overhauled and put in a fairly good condition to resume work during the present season.

LACHINE CANAL.

Length, 8½ miles; total rise, 45 feet; 5 locks, 270 feet x 45 feet with 14 feet on sills; 5 old locks 200 feet x 45 feet with 9 feet of water on sills, still available to navigation.

The water was drawn off the canal for general repairs and improvements on April 1 and re-admitted on May 2, a day later than usual.

During this month, the bottom of the locks, weirs and reaches, was cleared of all refuses, stones dropped from scows, water soaked logs, &c., all sluices, gates, valves, protection racks, &c., were overhauled and made right for the navigable season and all stone masonry, as far as was possible, was pointed with cement.

Throughout the whole year the canal grounds, buildings and other structures, roads, sidewalks, fences, culverts, wharfs, booms, ditches and the little River St. Pierre, were kept in a fairly good state of cleanliness and repair, and the telephone and lighting systems were maintained in efficient working order.

The new electric system for operating the lock gates was completed on every lock, old and new, early in the season and has given full satisfaction.

A considerable amount of repair work was done all along the canal, and amongst the chief items are the following:—

REPAIRS AND RENEWALS.

Locks.—Many broken and missing coping stones were replaced by concrete moulded in place and, in some cases, faced with heavy steel plates.

The portions of the side walls situated above the upper gate recesses at locks Nos. 3, 4 and 5 were raised about three feet with concrete faced with steel plates for additional safety of the large steel freighters entering these locks on their downward trips.

The old wooden anchor blocks for suspending the gates on old locks Nos. 3, 4 and 5, were replaced by heavy cast iron ones set in concrete and permanently secured to the lock masonry by means of large anchor bolts.

In order to provide a suitable foundation for the machinery to operate the lock gate, concrete blocks were built behind the lock walls and opposite the four gate

SESSIONAL PAPER No. 20

cesses of each of the ten locks. These blocks were made sufficiently large to reset the pulling strain exercised by the machinery and were set below the frost line.

Lock gates.—The platforms and mullions of the gates for the old and new locks, as far as possible, were renewed and the gates themselves scraped and repainted.

Spare gates.—Two pairs of lock gates were built during the year for old locks Nos. 3 and 5 and one pair for new lock No. 3. These were made so as to meet the requirements of the new electric machinery and those already on hand were altered to the same purpose.

Bridges.—The eight swing bridges over the canal were kept in good order, some of them replanked with 2-inch oak and partly painted over. The top floors of the nine stationery bridges were renewed and the bridges painted over.

The bridge constructed last year with scrap channels and beams proceeding from the demolition of the old Wellington street bridge, was put in place over the old supply weir at Lachine, by the canal repair men. This work necessitated the levelling of the piers of the old bridge, also the construction of concrete sidewalks on both sides and at each end of the bridge.

Wharfs.—The wharf opposite the Canada Sugar Refinery, on the south side of the canal, was substantially repaired and extended up stream 75 feet.

Mooring posts.—50 cast iron mooring posts and 100 nigger heads were permanently set in concrete at different points along the canal.

Slope walls.—The work of facing with concrete the slope walls of the canal, in the long reach, above Cote St. Paul locks, was finished during the year and there remains only the revetment wall on the south side and some repairs to the vertical walls to complete the work in said reach.

The season's operations have stopped a serious leak through the canal bank at Cote St. Paul.

These works are being done under contract by Messrs. Haney, Quinlan & Robertson.

Widening and wharf accommodation at St. Henri and Cote St. Paul.—This work consisting of widening the canal below lock 4 for a distance of 3,300 feet on the north side, and 1,800 feet on the south side, was started by the contractors, the Canadian General Development Company, Limited, at the beginning of the year and pushed very vigorously. All the north wall is finished and only a small portion of the south wall remains to be done. However, it will take all of the coming season to finish the dredging and make the total area of the basin available for navigation.

INCOME.

Rebuilding wall north side Basin No. 2.—This work, which also includes the re-flooring with concrete and scoria blocks of the sheds on Colborne street, was satisfactorily completed by the contractors, Messrs. Quinlan & Robertson.

The wharfs in the immediate vicinity of these sheds were also permanently paved, the walls all rebuilt in concrete and the entire basin is now in first-class condition.

SOULANGES CANAL.

Length, 14 miles; 5 locks, 270 x 45 feet, with 15 feet of water on sills, total rise 84 feet.

REPAIRS AND RENEWALS.

Shops.—The carpenters' shop was provided with a piercing and mortising machine and the blacksmiths' shop with a large size champion forge, mechanical blower, electric motors, &c. The provision of tools for the machine shops was much added to.

1 GEORGE V., A. 1911

Locks.—In order to prevent, as far as possible, the coping stones of the locks and wing walls from being chipped or broken by the heavy steel freighters coming into contact with them, the face of these stones was bevelled six inches and their top arris rounded to a three-inch radius. This work has proven very effective and since its completion, not a stone has been damaged, although collisions of freighters with lock walls have been as numerous as before.

Lock Gates.—The platforms of the lock gates have been renewed and the gates themselves scraped and repainted.

Bridges.—New floorings of tamarack planks, three inches in thickness were laid on the St. Dominique and Coteau Landing highway bridges and twelve of the farm bridges were recovered with pine planks.

Buildings.—The storing sheds, the clerk's lodging and the shops have been provided with spouts and gutters, in order to prevent their foundations from being deteriorated by rain water. The overseer's lodging and outbuildings have been roofed with galvanized iron and repainted. The collector's house at Coteau Landing was considerably repaired.

Fences and Sidewalks.—Besides keeping these structures in good repair a new fence was erected to divide off the grounds around the overseer's lodging from a public passage between the highway road and the foot bridge across the tail race of weir No. 3 and a concrete sidewalk, about two hundred feet in length, has been laid from the overseer's house to the above-mentioned foot bridge.

Ditches and roads.—The most important ditches were thoroughly cleaned and the road along the canal kept in a fairly good order.

Slopes.—The slopes of the canal which had been deteriorated by the wash of passing vessels, have been reformed and faced with flat quarry stones, the quantity of stones used for this purpose amounting to several hundred cubic yards. The top portion of the inner slope of the south bank, on at least 1,400 feet on each side of the electric power house, was reformed and sodded over.

Canal lands.—The canal banks were cleaned out of bad weeds twice during the summer and the lock grounds were kept clean throughout the season.

Electric transmission line.—The No. 4 wires have been replaced by larger ones, viz.:—No. 0.0 from the power station to about one mile further up the canal, with a view of getting better results in lighting the far end of the canal, and the change has proved very satisfactory.

The old three-wire cables laid across the canal at locks Nos. 1, 2 and 3 were taken up and replaced by single wire cables laid in galvanized iron pipes crossing at the foot of lock No. 2. These cables are now carrying the electric current across the canal at its original tension of 2,200 volts. The transformers on the south side of the canal have been placed in concrete boxes sunk into the ground near the gate and sluice motors.

Water supply.—A four-inch cast iron pipe was laid from the canal to the three electricians' lodgings, and the same size pipe laid during the previous year was extended across the canal at the head of lock No. 2 and to the overseer's house.

CAPITAL.

Buildings.—A small fireproof building (brick and concrete) was erected in the shop yard to house the electric transformers which had been formerly imprudently placed in the garret of the shop building.

Concrete lining of slopes.—The inner slope of the south embankment of the canal, for a total distance of 4,215 feet, was faced with a coat of concrete generally 18 inches in thickness. This work was performed under contract by Messrs. Haney, Miller, Quinlan and Robertson, by means of a plan specially designed for the purpose and

SESSIONAL PAPER No. 20

approved by the department. Though the portions of the bank where leakage was most considerable have been protected during the year by this concrete lining, the works will be continued this year until every leak from the canal has been stopped.

Side walls.—Towards the end of last summer, a leak through the north bank of the canal through locks Nos. 1 and 2, which had given considerable trouble for some years, became so very threatening that it was found expedient to build a strong concrete wall in front of this bank before navigation would open again. This work was entrusted to Messrs. Haney, Miller, Quinlan and Robertson, who had on the spot a large plant to do the work with. At the end of the fiscal year, the contractors had the excavation done, and nearly all the foundation in place and were in a fair way to complete the wall for the opening of navigation.

INCOME.

Mooring posts.—Ten new cast iron mooring posts inserted in a large mass of concrete were set up on the north side of the canal, where most needed, viz.: opposite the Montreal, Light, Heat and Power Company's intake channel and immediately above St. Dominique bridge. Many of the old posts have been taken up and reset in concrete blocks of much larger dimensions than were those originally used.

Gate lifting scow.—A steel scow with two large derricks on its deck, operated by worm gear winches and capable of lifting thirty tons each, has been received at the beginning of the season for the purpose of hanging the canal lock gates. The hull of this scow was built by Messrs. Beauchemin & Co., the derricks by the Phoenix Bridge and Iron Works, Ltd., and the winches by the Hall Engineering Co., and the fitting up was completed by the canal men.

BEAUHARNOIS CANAL.

The company having this canal under rental have kept it closed to navigation during most of the last season for the purpose of taking borings from the head of the canal to where their power house is to be constructed. The canal was kept practically in the same state as it was during the previous year.

INCOME.

Ste. Barbe and Hungry Bay Dykes.—The work of protecting these clay dykes against the invading waters of Lake St. Francis by building a chain of boulders some distance into the lake was continued during the winter. The protection of the Hungry bay dyke is now completed and will only have to be maintained in future, but the work of Ste. Barbe will have to be carried on a few years longer.

Macadam.—The macadamizing of the public road on top of Hungry bay dyke was commenced during the year and about 3,500 lineal feet of road were completed. The crushed stone for this work is purchased under contract from Mr. Alfred Cossette, but the trimming of the road, the placing of the crushed stone and the rolling of it was done by day labour under the supervision of an official of the department.

STE. ANNE LOCK.

Length $\frac{1}{2}$ mile, one lock 200 x 45 feet, 9 feet of water on sills, total rise 3 feet. Old lock still available to navigation 200 x 45 with 6 feet of water on sills.

REPAIRS AND RENEWALS.

Besides the usual repairs to locks, buildings, fences, &c., the following were performed.

1 GEORGE V., A. 1911

Guide Piers.—The top of the two cribwork piers on each side of Baker's channel and of the division pier above the locks were repaired and the mooring posts on the first named pier were renewed.

Lock Grounds.—Gravel was deposited in all the alleys and on the ground surrounding the locks and the grass was kept short and in nice clean condition throughout the season.

Slide.—A permanent slide for hauling lock gates was constructed and a pair of spare gates were hauled up.

INCOME.

Bridges.—The old wooden bridges over the slips in the wharf below the locks were replaced by others consisting of steel I beams covered with four-inch plank and resting on concrete abutments. A pipe railing was placed on the inner side of each bridge.

Mooring posts.—The wooden posts on each side of the new lock were replaced with large cast iron posts with moulded head inserted in heavy concrete mass sunk in the ground below the frost line. There were eight of these posts put in position.

CARILLON AND GRENVILLE CANALS.

CARILLON CANAL.—Length $\frac{3}{4}$ mile, 2 locks 200 x 45 feet, 9 feet of water on sills, total rise 16 feet.

GRENVILLE CANAL.—Length $5\frac{3}{4}$ miles, 5 locks 200 x 45 feet, 9 feet of water on sills, total rise $43\frac{3}{4}$ feet.

REPAIRS AND RENEWALS.

Among the works performed under this heading may be mentioned the following as the most important:—

Maintenance of the canal banks, towpaths and roads, fences, telephone line, &c.

Cleaning ditches, by-washes, culverts, lock grounds, &c.

Painting lock and weir masonry with cement mortar.

Repairing lock gates, bridges, guide and boom piers, scows, &c.

Building new gates for locks Nos. 5 and 7, a wood shed and an ice-house for the use of the canal office.

Cutting new drain between locks Nos. 4 and 5.

INCOME.

Public road.—The macadamizing of the two miles of road along the old abandoned canal at Carillon, part of which had been done during the previous year, was completed.

The stone crusher and the steam roller used on the above work were shipped respectively to the Soulanges canal and to Valleyfield.

Carillon dam.—An appropriation of \$15,000 had been voted for this year to complete the repairs to the gap in the Carillon dam, but this work could not be done on account of the water in the Ottawa river remaining much higher than usual. However, all the necessary timber for these repairs has been purchased and delivered on the spot. It is contemplated to resume work as soon as possible during the present fiscal year.

SESSIONAL PAPER No. 20

ST. OURS LOCK.

Length of canal, $\frac{1}{8}$ mile; one lock, 200 x 45 feet, 7 feet of water on sills; total rise, 5 feet.

REPAIRS AND RENEWALS.

All the various structures on the canal have been kept in very good repair during this year except the boom piers below the lock.

These piers have been only superficially repaired, it being understood that they will be replaced by permanent concrete structures within a year or two.

The chief items of work performed here are the following:—

Guiding Booms.—All the booms that are stretched along the boom piers in both the upper and lower entrances of the lock, have been taken out of the water and thoroughly repaired.

Scows.—The large derrick scow was recaulked and painted and so were the smaller vessels.

Island.—The island was kept clean and it was further protected against scouring by placing on its shores about 240 cubic yards of field stones.

Painting.—All the buildings and fences were whitewashed. The grounds around the lock and buildings have been kept in perfect order during the whole year.

CHAMBLY CANAL.

Length, 12 miles; 9 locks, 118 x 22½ feet, 6½ feet of water on sills; total rise, 74 feet.

REPAIRS AND RENEWALS.

The telephone and light services on the canal have been very satisfactory everywhere except in the harbour of St. Johns, where the lighting was supplied under contract by the St. Johns Electric Light Co. This company, however, has improved its power plant and better service is expected for the coming year.

The water at St. Johns was extremely low during the greatest part of the summer and on one day, was only 5 feet 11 inches higher than the sills of the guard lock. This unusually low water was attributed to the blasting of a large number of boulders on the crest of the natural dam immediately above the St. Johns rapids. The level of the water in the river above the canal will be watched closely this year, and should it shows signs to become as low as last year, a temporary clay and boulder dam will be built at some suitable point by the Public Works, pending the construction of the permanent dam at Vikerman's Point, below Ste. Therese island.

The canal was kept clean and in good state of repair.

The chief items of work performed under this heading during the year 1909-10, were the following:—

Banks and Grounds.—The canal banks and the grounds around the locks and buildings were kept clean of bad weeds and refuse of all kinds, and wherever the slope walls had tumbled down, they were rebuilt. All the farm roads off the tow-path were put in good order and some levelling was done with material taken from the canal bottom near the Canadian Pacific Railway swing bridge, at St. Johns, P.Q.

Mooring Posts.—About thirty mooring posts have been renewed at different points along the canal.

Locks.—Besides the usual pointing with cement, the gates were scraped and painted. A new pair of gates were put in place at lock No. 9. Two new guiding cribworks were built at the head of lock No. 2.

1 GEORGE V., A. 1911

Drains and Weirs.—Some of the drains were deepened and all the others were cleaned. The weirs have been kept in good working order.

Bridges.—A number of bridges had their floorings renewed and nearly every one was given a coat of paint. The approaches to bridges No. 3 and 8, were macadamized and a concrete sidewalk crossing the tow-path was built at bridge No. 8. The end walls of the pipe culverts under the public road to St. Johns, were rebuilt.

Ditches.—Several new ditches were cut along and on the canal property, the total length being about three miles.

Buildings.—The oldest structures have been pulled down and replaced. All the others have been thoroughly repaired, cleaned, whitewashed or painted.

Fences.—About 1,700 lineal feet of new fence were erected along the Deneault drain and about $3\frac{1}{2}$ miles of the existing fences reset and repaired.

Scows.—The dredge and scows belonging to the canal were repaired and given one coat of paint. The machinery of the dredge and derricks was overhauled and somewhat altered with the view of getting better results, and a new bucket was purchased for the dredge.

CAPITAL.

St. Johns Harbour.—The proposed improvements in the harbour of St. Johns consist in the removal of the Donaghy wharf, the extension of the present canal wharf up to the Central Vermont Railway bridge, the building of a new wharf parallel to the said bridge, on the up stream side, the erection of a breakwater and the laying of an inlet pipe line for the St. Johns aqueduct.

That portion of the improvements located above the bridge was completed during the fiscal year 1909-10 by Messrs. John G. Poupore & Co., to whom the contract for this work had been awarded on December 15, 1908.

All the works covered by this contract would likely have been completed by this time, had not the Grand Trunk Railway Co. objected to the department taking possession of their water lot, within which the greatest part of the improvements are located.

Power house.—The electric power house at Chambly, the foundations of which were laid during the previous year, was completed, but nothing yet has been done towards installing the electric machinery, there being no appropriation for this kind of work.

INCOME.

Bridges.—The ramps to the Jones bridge across the canal and tow-path at St. Johns, were totally renewed, this work involving the driving of many piles. Ten wooden bridges across the public road from Chambly to St. Johns were replaced with culvert pipes of large diameter. The length of these culverts in all cases is equal to the full width of the road.

Tow-path.—The macadamizing of the tow-path along the canal, which had been going on for a number of years, was completed during the fiscal year just ended, and the tow-path from one end to the other is in perfect order.

Booms.—The guide booms on the east side of the upper entrance of the canal were totally renewed and covered with two-inch planks.

I have the honour to be, sir,

Your obedient servant,

L. S. PARISEAU,

Acting Superintending Engineer Quebec Canals.

SESSIONAL PAPER No. 20

LACHINE CANAL.

STATEMENT showing the depth of the River Water on the Mitre Sills of new Lock No. 1 at lower entrance, and new Lock No. 5 at upper entrance, during the fiscal year ending March 31, 1910.

| Months. | NEW LOCK NO. 1, LOWER SILL. | | | | NEW LOCK NO. 5, UPPER SILL. | | | |
|-----------------|-----------------------------|-----|---------|-----|-----------------------------|-----|---------|-----|
| | Highest. | | Lowest. | | Highest. | | Lowest. | |
| | Ft. | In. | Ft. | In. | Ft. | In. | Ft. | In. |
| 1909. | | | | | | | | |
| April. | 37 | 0 | 20 | 10 | 19 | 4 | 16 | 1 |
| May. | 25 | 1 | 20 | 6 | 21 | 1 | 19 | 2 |
| June. | 24 | 4 | 18 | 6 | 21 | 4 | 17 | 6 |
| July. | 18 | 4 | 17 | 0 | 17 | 4 | 16 | 8 |
| August. | 17 | 10 | 16 | 1 | 17 | 2 | 16 | 2 |
| September. | 16 | 5 | 15 | 7 | 16 | 2 | 15 | 8 |
| October. | 16 | 5 | 14 | 10 | 15 | 10 | 15 | 2 |
| November. | 16 | 1 | 14 | 3 | 15 | 2 | 14 | 10 |
| December. | 21 | 10 | 14 | 6 | 15 | 9 | 14 | 6 |
| 1910. | | | | | | | | |
| January. | 29 | 10 | 22 | 4 | 16 | 2 | 14 | 6 |
| February. | 25 | 5 | 21 | 9 | 15 | 9 | 13 | 6 |
| March. | 34 | 0 | 22 | 5 | 17 | 0 | 14 | 4 |

SOULANGES CANAL.

STATEMENT showing the depth of the River Water on the Mitre Sills of Lock No. 1, at lower entrance, and Lock No. 5 at upper entrance, during the fiscal year ending March 31, 1910.

| Months. | LOCK NO. 1, LOWER SILL. | | | | LOCK NO. 5, UPPER SILL. | | | |
|-----------------|-------------------------|-----|---------|-----|-------------------------|-----|---------|-----|
| | Highest. | | Lowest. | | Highest. | | Lowest. | |
| | Ft. | In. | Ft. | In. | Ft. | In. | Ft. | In. |
| 1909. | | | | | | | | |
| April. | 21 | 9 | 19 | 6 | 17 | 8 | 16 | 6 |
| May. | 23 | 0 | 20 | 5 | 17 | 7 | 17 | 0 |
| June. | 22 | 9 | 19 | 2 | 17 | 4 | 17 | 0 |
| July. | 19 | 2 | 18 | 5 | 17 | 2 | 17 | 0 |
| August. | 18 | 5 | 17 | 9 | 17 | 0 | 16 | 8 |
| September. | 17 | 9 | 17 | 4 | 16 | 8 | 16 | 4 |
| October. | 17 | 4 | 16 | 9 | 16 | 6 | 16 | 0 |
| November. | 17 | 0 | 16 | 8 | 16 | 3 | 15 | 6 |
| December. | 18 | 2 | 16 | 8 | 16 | 6 | 15 | 6 |
| 1910. | | | | | | | | |
| January. | 18 | 8 | 17 | 8 | 16 | 8 | 15 | 3 |
| February. | 18 | 9 | 18 | 0 | 16 | 5 | 15 | 4 |
| March. | 19 | 3 | 18 | 4 | 17 | 2 | 15 | 6 |

BEAUHARNOIS CANAL.

STATEMENT showing the depth of the River Water on the Mitre Sills of Lock No. 6, at lower entrance, and Lock No. 14 at upper entrance, during the fiscal year ending March 31, 1910.

| Months. | LOCK NO. 6, LOWER SILL. | | | | LOCK NO. 14, UPPER SILL. | | | |
|----------------|-------------------------|-----|---------|-----|--------------------------|-----|---------|-----|
| | Highest. | | Lowest. | | Highest. | | Lowest. | |
| | Ft. | In. | Ft. | In. | Ft. | In. | Ft. | In. |
| 1909. | | | | | | | | |
| April | 13 | 2 | 11 | 5 | 12 | 7 | 11 | 3 |
| May..... | 15 | 8 | 13 | 4 | 12 | 6 | 11 | 10 |
| June..... | 15 | 0 | 11 | 9 | 12 | 1 | 11 | 10 |
| July..... | 11 | 10 | 11 | 0 | 11 | 11 | 11 | 7 |
| August..... | 12 | 0 | 11 | 0 | 11 | 9 | 11 | 4 |
| September..... | 10 | 10 | 10 | 0 | 11 | 7 | 11 | 0 |
| October..... | 10 | 2 | 9 | 9 | 11 | 3 | 10 | 8 |
| November..... | 9 | 8 | 9 | 4 | 11 | 0 | 10 | 4 |
| December..... | 10 | 2 | 9 | 5 | 11 | 9 | 10 | 5 |
| 1910. | | | | | | | | |
| January | 15 | 0 | 10 | 2 | 11 | 11 | 10 | 4 |
| February..... | 20 | 0 | 12 | 10 | 10 | 11 | 9 | 9 |
| March..... | 13 | 0 | 11 | 6 | 11 | 10 | 10 | 5 |

CHAMBLY CANAL.

STATEMENT showing the depth of the River Water on the Mitre Sills of Lock No. 9, at lower entrance, and Lock No. 1 at upper entrance, during the fiscal year ending March 31, 1910.

| Months. | LOCK NO. 9, LOWER SILL. | | | | LOCK NO. 1, UPPER SILL. | | | |
|----------------|-------------------------|-----|---------|-----|-------------------------|-----|---------|-----|
| | Highest. | | Lowest. | | Highest. | | Lowest. | |
| | Ft. | In. | Ft. | In. | Ft. | In. | Ft. | In. |
| 1909. | | | | | | | | |
| April..... | 20 | 10 | 17 | 1 | 13 | 0 | 10 | 0 |
| May..... | 19 | 1 | 16 | 7 | 12 | 9 | 11 | 9 |
| June..... | 16 | 5 | 12 | 2 | 11 | 10 | 9 | 5 |
| July..... | 12 | 2 | 9 | 10 | 9 | 7 | 8 | 4 |
| August..... | 9 | 10 | 8 | 7 | 8 | 6 | 7 | 6 |
| September..... | 9 | 4 | 7 | 10 | 8 | 0 | 6 | 9 |
| October..... | 8 | 4 | 7 | 6 | 7 | 9 | 6 | 8 |
| November..... | 9 | 1 | 7 | 5 | 7 | 6 | 6 | 3 |
| December..... | 8 | 3 | 7 | 7 | 7 | 5 | 6 | 10 |
| 1910. | | | | | | | | |
| January | 10 | 0 | 7 | 8 | 8 | 2 | 6 | 11 |
| February..... | 10 | 9 | 9 | 5 | 8 | 5 | 8 | 0 |
| March..... | 16 | 11 | 10 | 11 | 12 | 4 | 8 | 6 |

SESSIONAL PAPER No. 20

ST. OURS LOCK.

STATEMENT showing the depth of the River Water on the Mitre Sills of St. Ours Lock during the fiscal year ending March 31, 1910.

| Months. | LOCK NO. 1, LOWER SILL. | | | | LOCK NO. 1, UPPER SILL. | | | |
|-----------------|-------------------------|-----|---------|-----|-------------------------|-----|---------|-----|
| | Highest. | | Lowest. | | Highest. | | Lowest. | |
| 1909. | Ft. | In. | Ft. | In. | Ft. | In. | Ft. | In. |
| April | 21 | 0 | 16 | 0 | 17 | 0 | 12 | 5 |
| May..... | 19 | 7 | 16 | 3 | 15 | 6 | 13 | 3 |
| June..... | 17 | 7 | 11 | 5 | 13 | 6 | 10 | 5 |
| July..... | 11 | 4 | 8 | 11 | 10 | 4 | 8 | 11 |
| August..... | 9 | 11 | 8 | 1 | 8 | 11 | 8 | 1 |
| September | 9 | 5 | 7 | 7 | 8 | 7 | 7 | 10 |
| October..... | 9 | 7 | 6 | 11 | 8 | 1 | 7 | 7 |
| November..... | 8 | 8 | 6 | 6 | 8 | 6 | 7 | 6 |
| December..... | 10 | 9 | 6 | 9 | 7 | 11 | 7 | 8 |
| 1910. | | | | | | | | |
| January..... | 11 | 0 | 8 | 7 | 8 | 10 | 7 | 6 |
| February..... | 10 | 3 | 8 | 3 | 8 | 9 | 8 | 3 |
| March | 17 | 1 | 9 | 8 | 13 | 4 | 9 | 0 |

STE. ANNE'S LOCK.

STATEMENT showing the depth of the River Water on the Mitre Sills of Ste. Anne's Lock at lower and upper entrances, during the fiscal year ending March 31, 1910.

| March. | LOCK NO. 1, LOWER SILL. | | | | LOCK NO. 1, UPPER SILL. | | | |
|-----------------|-------------------------|-----|---------|-----|-------------------------|-----|---------|-----|
| | Highest. | | Lowest. | | Highest. | | Lowest. | |
| 1909. | Ft. | In. | Ft. | In. | Ft. | In. | Ft. | In. |
| April | 15 | 1 | 11 | 7 | 16 | 4 | 11 | 9 |
| May | 16 | 6 | 14 | 0 | 20 | 0 | 16 | 0 |
| June..... | 16 | 1 | 12 | 7 | 19 | 8 | 14 | 0 |
| July..... | 12 | 6 | 11 | 9 | 13 | 11 | 12 | 3 |
| August | 12 | 4 | 11 | 1 | 12 | 3 | 11 | 1 |
| September..... | 11 | 1 | 10 | 7 | 11 | 10 | 11 | 7 |
| October..... | 10 | 8 | 10 | 2 | 11 | 9 | 11 | 3 |
| November..... | 10 | 4 | 9 | 11 | 11 | 11 | 11 | 3 |
| December..... | 11 | 2 | 10 | 4 | 12 | 0 | 11 | 5 |
| 1910. | | | | | | | | |
| January..... | 11 | 7 | 10 | 2 | 11 | 5 | 11 | 0 |
| February | 10 | 9 | 9 | 7 | 11 | 2 | 10 | 7 |
| March..... | 12 | 5 | 9 | 6 | 13 | 4 | 10 | 6 |

1 GEORGE V., A. 1911

CARILLON CANAL.

STATEMENT showing the depth of the River Water on the Mitre Sills of Lock No. 1, at lower entrance, and Lock No. 2. at upper entrance, during the fiscal year ending March 31, 1910.

| Months. | LOCK NO. 1, LOWER SILL. | | | | LOCK NO. 2, UPPER SILL. | | | |
|----------------|-------------------------|-----|---------|-----|-------------------------|-----|---------|-----|
| | Highest. | | Lowest. | | Highest. | | Lowest. | |
| | Ft. | In. | Ft. | In. | Ft. | In. | Ft. | In. |
| 1909. | | | | | | | | |
| April..... | 18 | 5 | 12 | 11 | 18 | 6 | 12 | 4 |
| May..... | 22 | 9 | 17 | 8 | 22 | 8 | 17 | 0 |
| June..... | 22 | 6 | 15 | 7 | 22 | 4 | 15 | 7 |
| July..... | 15 | 5 | 13 | 6 | 15 | 5 | 13 | 6 |
| August..... | 15 | 3 | 12 | 11 | 15 | 3 | 12 | 7 |
| September..... | 13 | 3 | 12 | 10 | 12 | 10 | 12 | 4 |
| October..... | 13 | 1 | 12 | 4 | 12 | 9 | 12 | 0 |
| November..... | 12 | 11 | 12 | 3 | 12 | 8 | 12 | 0 |
| December..... | 13 | 4 | 12 | 7 | 13 | 10 | 12 | 5 |
| 1910. | | | | | | | | |
| January..... | 13 | 11 | 12 | 6 | 15 | 6 | 12 | 6 |
| February..... | 12 | 11 | 12 | 8 | 13 | 6 | 11 | 10 |
| March..... | 15 | 3 | 12 | 7 | 14 | 5 | 12 | 0 |

GRENVILLE CANAL.

STATEMENT showing the depth of the River Water on the Mitre Sills of Lock No. 3, at lower entrance, and Lock No. 7. at upper entrance, during the fiscal year ending March 31, 1910.

| Months. | LOCKS NO. 3, LOWER SILL. | | | | LOCK NO. 7, UPPER SILL. | | | |
|----------------|--------------------------|-----|---------|-----|-------------------------|-----|---------|-----|
| | Highest. | | Lowest. | | Highest. | | Lowest. | |
| | Ft. | In. | Ft. | In. | Ft. | In. | Ft. | In. |
| 1909. | | | | | | | | |
| April..... | 22 | 7 | 15 | 4 | 19 | 3 | 12 | 0 |
| May..... | 28 | 6 | 22 | 2 | 24 | 11 | 18 | 9 |
| June..... | 27 | 11 | 19 | 3 | 23 | 10 | 16 | 6 |
| July..... | 19 | 1 | 16 | 4 | 16 | 8 | 13 | 8 |
| August..... | 18 | 7 | 15 | 4 | 16 | 0 | 12 | 6 |
| September..... | 15 | 6 | 15 | 2 | 12 | 10 | 12 | 4 |
| October..... | 15 | 5 | 14 | 8 | 12 | 9 | 12 | 0 |
| November..... | 15 | 6 | 14 | 7 | 12 | 10 | 12 | 0 |
| December..... | 16 | 4 | 14 | 11 | 12 | 10 | 12 | 4 |
| 1910. | | | | | | | | |
| January..... | 18 | 5 | 15 | 2 | 12 | 4 | 11 | 4 |
| February..... | 16 | 4 | 14 | 6 | 12 | 0 | 10 | 3 |
| March..... | 17 | 5 | 14 | 2 | 15 | 3 | 10 | 5 |

ST. LAWRENCE CANALS.

OFFICE OF THE SUPERINTENDENT.

CORNWALL, Ont., March 30, 1910.

SIR,—I beg to forward herewith the annual report on the maintenance and operation of the Ontario-St. Lawrence canals for the fiscal year ending March 31, 1910.

The district stretches from Cornwall, at the foot of the Long Sault rapids on the St. Lawrence river, to Presque Isle bay on Lake Ontario, and embraces the Cornwall canal, overcoming the Long Sault rapids; the Farran Point canal, overcoming the Farran Point rapids; the Rapide Plat canal, overcoming the Rapide Plat, and the Galop canal, overcoming the Galop rapids and the Murray canal joining the Bay of Quinté and Presqu'Isle bay. The united length of canal is 28 miles, overcoming a rise of 78 feet in the river.

THE CORNWALL CANAL

was opened for navigation May 3 and closed December 6, 1909, and was operated during the season without serious interruption or accident.

During the period the canal was unwatered in the spring, all repairs to structures below water were completed. In this time 50 feet of concrete wash wall was put in the south bank at each end of locks Nos. 19 and 20, at the lower ends of locks Nos. 18, 21, and Mille Roches bridge, and in both banks at the upper end of Cornwall bridge wing walls. The wash wall consists of a backing of small stone of about a foot in depth on the slope of the bank, faced with a foot thick of concrete and extending about a foot vertically below normal water level and about three feet above; two concrete culverts across the new bank on the north side between locks No. 18 and No. 19. All the weir valves at locks No. 18, No. 19 and No. 20 were taken out and repaired and refitted; all the fallen rip-rap was replaced.

The earth bank on the north side between locks No. 18 and No. 19 was built up to the grade, and will be completed during the next year with a concrete wash wall.

The rebuilding of the old timber entrance pier and wharf on the north side of the lower entrance to the canal, with a concrete superstructure, was completed, and came through the winter ice-shove in good condition.

All the spare gates for locks Nos. 15 and No. 17 were provided with a pin suspension gear instead of a screw; the valves all refitted and then the spare gates stepped, replacing the ones in use, which were similarly refitted and stored for spares. The same work was done on one pair for lock No. 19, making in all eight pairs of gates overhauled.

A new floor was laid over the weir bridges at locks Nos. 17 and No. 19.

Fender posts to keep side-wheel steamers off the lock copings were erected at locks Nos. 15, No. 17 and No. 18, and made ready for lock No. 19, to be erected during the coming year.

The Cornwall and Mille Roches bridges were painted.

A considerable quantity of stone was procured from neighbouring farmers during the early winter.

Two new fire-box side plates were put in the boiler of the *Alert*.

During the last months of the season extra men were temporarily employed on the operation of several of the locks. Their services did not prove of sufficient value to warrant their being employed permanently.

Thomas Carr, lockman at lock No. 17, was superannuated.

1 GEORGE V., A. 1911

THE WILLIAMSBURG CANALS

were opened May 1 and closed December 8, 1909, and were operated during the season without serious interruption or accident.

The rip-rap was repaired at different points along the line as required. Two hundred (200) cords of field stone were placed as a toe along the outer bank below the lift lock, Galop canal.

The Iroquois and the Cardinal bridges were painted. This completed the painting of all the bridges in the district.

All the lock gates, watch houses, &c., were painted.

Owing to the rebuilding of the piers at the head of the Galop canal it was necessary to find other storage space for spare gates, and they were taken away and stored near the lock for which each pair was intended.

All the ditches were cleaned out.

Extensive repairs were made to the north lower entrance pier, Farran Point, and the lower entrance pier at Morrisburg was refloored.

Ten iron snubbing posts set in a block of concrete were placed along the approach walls at lock No. 23 and 35, iron snubbing posts were placed between locks No. 27 and No. 28.

The work on Bridge street, Cardinal, was completed; and it is now in condition to be turned over to the municipality.

The work of rebuilding the spare gates for lock No. 24 is well under way, and will be completed early next year.

A large stock of field stone was procured for further protection to the outer bank of the Galop canal.

It has become evident that a considerable amount of cleaning up of the bottom of the Rapide Plat is necessary. An appropriation will be asked for the coming year.

The question of operating and lighting the Williamsburg canals by electric power is being gone into, and it is hoped that a scheme will be ready for next year.

THE MURRAY CANAL

was opened for navigation on April 12, and closed December 7, 1909, and was operated throughout the season without interruption or accident.

All the bridges, houses, &c., were painted and maintained in good condition.

A new floor was put on the Smithfield bridge, and one new king post put in the Trenton road bridge.

The ditches were kept open and the banks came through the winter in excellent condition.

At the east end the banks were trimmed and re-levelled, and a stretch of 1,000 feet of rip-rap relaid.

The traffic on this canal has increased largely in late years, and further increase is promised. Many large freighters are using this route, but are forced to load light as the canal was built to give only 11-foot navigation. If this traffic is to continue, the question of widening and deepening the canal must be considered.

Appended are statements of water levels and fines and damages.

I am, sir,

Your obedient servant,

W. A. STEWART,

A. W. CAMPBELL, Esq., C.E.,

Deputy Minister,

Department of Railways and Canals,

Ottawa, Ont.

Superintendent.

STATEMENT of Fines and Damages, in connection with Ontario St. Lawrence Canals, during Season of 1909.
CORNWALL CANAL.

| Lock. | Date. | Name of Vessels. | Damage. | Fine. | Name of Owner. | Remarks. |
|-------|--------------|------------------|---------|---------|--------------------------------|-----------|
| | | | \$ cts. | \$ cts. | | |
| 15 | May 4.... | 'Mary Ellen' | | 5 00 | Ed. Jesner.... | Paid. |
| 18 | June 25.... | 'Wasaga' | | 20 00 | Collingwood Shipping Co..... | " |
| 15 | " 30.... | 'W. Gleeson' | | 5 00 | ..... | " |
| 20 | July 27.... | 'Odland' | 2 18 | | A. Fredrickson | " |
| 20 | " 31.... | 'A. Runions' | | 5 00 | ..... | " |
| 19 | " 31.... | 'G. Manson' | | 5 00 | ..... | " |
| 21 | Aug. 9.... | 'Dundee' | | 50 00 | Inland Nav. Co..... | " |
| 15 | " 10.... | 'J. Dawson' | | 5 00 | ..... | " |
| 19 | " 16.... | 'F. Bourgon' | | 5 00 | ..... | " |
| 20 | Sept. 16.... | 'John Lambert' | 30 00 | 50 00 | G. L. & St. L. Trans. Co. | " |
| 19 | " 16.... | 'Drooning Maud' | 14 92 | 30 00 | A. Fredrickson..... | " |
| 20 | " 17.... | 'Meteor' | 50 52 | 50 00 | James Pendergast..... | " |
| 17 | " 22.... | 'Glengarry' | 13 78 | | H. W. Richardson... .. | " |
| 20 | Oct. 11.... | 'J. H. Plummer' | | 20 00 | C. L. & O. Nav. Co..... | " |
| 18 | " 16.... | 'J. Creror' | 100 00 | | G. L. & St. L. Trans. Co. | " |
| 21 | " 19.... | 'Waccamaw' | 5 96 | | J. L. Croswaite..... | " |
| | Nov. 23.... | 'Newona' | 15 00 | 20 00 | Redford Steamship Line..... | Not paid. |

WILLIAMSBURG CANALS.

| | | | | | | |
|---------------|-------------|----------------|--------|--|-----------------------|-----------|
| 22 | June 26.... | 'Ben Harrison' | 100 00 | | J. L. Croswaite | Paid. |
| 24 | Nov. 10.... | 'Keywest' | 25 00 |  | ..... | " |
| MURRAY CANAL. | | | | | | |
| Ry. Bge.. | Oct. 2.... | 'L. S. Porter' | 23 25 | | Hepburn Bros. | Not paid. |

Record of Highest and Lowest Levels of Water on the Ontario St. Lawrence Canals for Year ending March 31, 1910.

| Month. | CORNWALL CANAL. | | FARRAN'S POINT CANAL. | | RAPIDE PLAT CANAL. | | GALOP CANAL. | | LIFT LOCK. | | MURRAY CANAL. | | | | | | | |
|--------|-----------------|----------|-----------------------|----------------|--------------------|----------|--------------|----------|------------|-------|---------------|------|------|------|------|------|-------|------|
| | Lock 15. | Lock 21. | Lower Lock 22. | Upper Lock 22. | Lock 23. | Lock 24. | Lock 25. | Lock 27. | Lock 28. | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | | | | | | | |
| Ft. | Ft. | Ft. | Ft. | Ft. | Ft. | Ft. | Ft. | Ft. | Ft. | Ft. | Ft. | | | | | | | |
| 17.3 | 15.9 | 17.9 | 15.5 | 18.7 | 17.0 | 18.0 | 18.7 | 17.0 | 18.0 | 16.2 | 21.0 | 19.5 | 16.8 | 15.5 | 17.6 | 16.1 | 14.3 | 12.3 |
| 16.9 | 16.2 | 16.9 | 15.7 | 18.9 | 17.8 | 19.9 | 19.1 | 18.2 | 18.5 | 16.8 | 22.2 | 20.7 | 17.5 | 16.5 | 19.0 | 17.4 | 14.9 | 13.8 |
| 16.5 | 16.1 | 17.2 | 16.5 | 19.2 | 18.5 | 20.2 | 19.4 | 18.6 | 18.7 | 17.9 | 22.2 | 21.3 | 17.8 | 16.9 | 18.7 | 17.9 | 14.8 | 14.1 |
| 16.4 | 16.1 | 17.0 | 16.4 | 18.9 | 18.6 | 19.8 | 19.4 | 18.5 | 18.6 | 17.8 | 22.1 | 21.3 | 17.7 | 17.0 | 18.7 | 18.0 | 14.9 | 14.1 |
| 16.3 | 15.9 | 16.6 | 16.3 | 18.7 | 18.0 | 19.6 | 18.6 | 18.0 | 18.0 | 17.3 | 21.5 | 20.7 | 17.0 | 16.5 | 18.1 | 17.4 | 14.4 | 13.6 |
| 16.0 | 15.4 | 16.5 | 15.7 | 18.4 | 17.3 | 19.3 | 18.2 | 17.2 | 17.8 | 16.6 | 21.3 | 19.7 | 16.9 | 15.8 | 18.0 | 16.6 | 13.10 | 13.2 |
| 15.7 | 15.0 | 16.0 | 15.4 | 17.8 | 16.7 | 18.6 | 17.5 | 16.6 | 17.7 | 16.0 | 20.3 | 19.0 | 16.5 | 15.4 | 17.4 | 15.8 | 13.3 | 12.7 |
| 15.3 | 14.7 | 15.8 | 14.5 | 17.7 | 16.2 | 18.4 | 16.8 | 15.7 | 17.4 | 15.3 | 20.6 | 18.2 | 16.4 | 14.4 | 17.3 | 14.5 | 12.9 | 12.0 |
| 16.5 | 14.6 | 16.0 | 14.5 | 18.3 | 16.3 | 19.0 | 16.8 | 15.6 | 18.5 | 14.9 | 21.5 | 17.9 | 16.2 | 14.8 | 17.0 | 15.0 | 12.8 | 11.9 |
| 1910. | | | | | | | | | | | | | | | | | | |
| 27.0 | 16.5 | 15.8 | 14.5 | 17.8 | 16.0 | 18.4 | 16.7 | 14.4 | 15.8 | 13.6 | 19.0 | 16.2 | 15.4 | 14.4 | 15.9 | 13.2 | 12.7 | 12.0 |
| 25.3 | 21.7 | 15.0 | 13.8 | 16.6 | 15.3 | 17.1 | 15.6 | 14.1 | 15.5 | 13.7 | 18.5 | 16.0 | 15.1 | 13.8 | 15.3 | 13.1 | 12.6 | 12.1 |
| 23.0 | 15.5 | 16.0 | 14.0 | 18.0 | 16.0 | 18.5 | 16.4 | 15.3 | 16.8 | 14.5 | 20.2 | 17.2 | 16.3 | 14.4 | 17.2 | 14.3 | 13.3 | 12.6 |

SESSIONAL PAPER No. 20

RESIDENT ENGINEER'S OFFICE,

CORNWALL, April 1, 1910.

SIR,—I have the honour to submit my annual report on the works under my direction for the fiscal year ending March 31, 1910.

CORNWALL CANAL.

Improving Upper Entrance to Lock No. 17.—Plans and specifications have been prepared and tenders are now being invited for this work.

The work contemplated comprises the construction of a cribwork and concrete approach wall on the north side of the upper entrance to this lock, the widening by dredging of the bottom of canal in the vicinity and the construction of a small waste weir to supplement the present waste weir to the river at this point, the capacity of which is insufficient to control the water in this level when the mills at the foot of the canal are closed.

The work as designed will materially assist vessels of the larger class entering this lock, the approach to which at present is extremely difficult.

Repairing Washout in South Canal Bank above Lock No. 18.—A contract was entered into with Mr. Thomas A. Nicholson, of St. Catharines, for this work, which was commenced in August, 1908, and carried on without interruption during the remainder of the season.

The canal was unwatered on March 29, 1909, when work was resumed, and during the month of April the concrete wall previously constructed across the washout was extended eastward to connect with the masonry retaining wall at the head of Lock No. 18, the temporary timber dam which had been constructed in the canal around the washout was removed, and the whole bottom of canal in the neighbourhood of the washout cleaned out and made ready for navigation.

This work was diligently prosecuted day and night under the most unfavourable weather conditions and the canal was opened for navigation on May 3.

The work of filling behind concrete wall, trimming, sodding and protecting the river side of new canal bank across washout was immediately proceeded with and the whole of the works embraced in this contract were satisfactorily completed on October 9, 1909. The final estimate for this work has been paid.

A portion of the south canal bank immediately west of the washout showed signs of weakness, so it was deemed expedient to extend the concrete wall westward for a distance of 465 feet, and accordingly plans and specifications were prepared, and tenders invited for this work. The contract was awarded to Mr. Gordon R. Phillips, of Cornwall.

During the winter months the contractor placed some materials on the ground, erected his plant and made all possible preparations for starting the work as soon as the canal was unwatered. The water was drawn off the canal on March 30, and on the following day the contractor commenced operations. This work will be pushed forward as rapidly as possible during the month of April to insure against any delay to the opening of navigation on May 1.

The work of trimming the high north slope above lock No. 21, under contract with Messrs. J. J. & V. S. Fallon, of Cornwall, and which was commenced during the season of 1908, was finally completed in a satisfactory manner on November 17, 1909.

The final estimate for this work has been paid.

1 GEORGE V., A. 1911

WILLIAMSBURG CANALS.

A contract was entered into on August 6, 1909, with Messrs. McCoy & Wilford, Ltd., for the removal of the tops of the old wooden piers and bridges across the head and tail race to the weir at lock No. 27, which were badly decayed, and the rebuilding of same in concrete and steel.

The work was commenced and carried on without interruption till the close of the season.

This work will be resumed this month, and I expect will be completed this season.

MURRAY CANAL.

Several complaints have been received during the past two seasons from the owners of vessels navigating this canal regarding the present depth of water available for navigation. I had some soundings taken near the eastern entrance to the canal, which show that the full depth as originally constructed does not at present exist at certain points.

This canal as originally constructed provided for a depth of only 11 feet at low water stage in Lake Ontario.

Owing to the very large increase in traffic through this canal in the last two years and the large class of boats now navigating it, it will be necessary, I think, in the near future to have this canal placed on the same basis as the rest of the canals on the system and provide for 14-foot navigation at low water, and I purpose asking for a small appropriation to enable me to have surveys and estimates of cost made next season with this end in view.

I have the honour to be, sir,

Your obedient servant,

C. D. SARGENT,

Resident Engineer.

W. A. BOWDEN, Esq., C.E.,

Chief Engineer, Dept. of Railways and Canals,
Ottawa, Ont.

GALOP CANAL.

SUPERINTENDING ENGINEER'S OFFICE,

OTTAWA, April 7, 1910.

SIR,—I have the honour to submit my annual report upon works of construction and survey in connection with the enlargement of the Ontario-St. Lawrence canals for the fiscal year ending March 31, 1910.

GALOP CANAL.

UPPER ENTRANCE.

This contract was awarded to Messrs. Murray & Cleveland in November, 1888, and was entirely completed on October 23, 1907.

The final estimate was completed and sent to the department on July 31, 1909. A number of claims have already been submitted to the department and have not as yet been adjusted or disposed of.

SESSIONAL PAPER No. 20

REMOVAL OF SHOALS IN RIVER, WEST OF UPPER ENTRANCE OF GALOP CANAL.

This contract was awarded to Mr. M. A. Cleveland on July 25, 1907, and was entirely completed on September 15, 1909, thereby affording an interrupted channel of seventeen feet deep of navigable water between the upper entrance of the Galop canal and the lower entrance of the North channel. The final estimate for this work was completed and sent to the department on January 3 last.

NORTH CHANNEL AND 'GUT DAM.'

The contract for these works was awarded to Mr. M. A. Cleveland, and commenced on May 14, 1897, and completed on October 1, 1908.

A final estimate of the work was prepared in the Cornwall district office, completed and sent to the department on November 6, 1908.

A number of claims arising out of some material changes made in the original contract for this work still remain to be presented to the department for adjustment.

GALOP RAPID IMPROVEMENT.

This work under contract with the Gilbert Bros. Engineering Company, Limited, since September 25, 1897, was stopped in September, 1906, the government having decided that no more money would be granted for the work.

Detail plans, cross-sections, diagrams and calculations for the final estimate of this work were completed in December, 1909. A number of disputed claims still remain to be adjusted before the Exchequer Court. In connection with these claims, detail cross-sections and calculations of quantities have also been prepared in the Cornwall office with a view of affording all necessary information bearing upon the claims.

All works in connection with the enlargement of canals in this district and final estimates having been completed, this office was closed on March 31 last.

IMPROVEMENT OF RIVER STRETCHES BETWEEN CANALS.

I beg leave to draw your attention to the fact that, before the entire completion of this part of the canal system, it was contemplated to afford a more direct navigable route by straightening the river channel stretches between canals. In my report for year ending June 30, 1904, I suggested several improvements in this direction.

The chief engineer reported as follows, viz.: 'As the hydrographic survey service has been transferred from this department to the Marine and Fisheries Department this work, it appears to me, will devolve upon them.'

Since then I must say that the traffic upon the upper St. Lawrence river has increased materially and is assuming greater proportions every year.

A great number of large iron vessels were placed on this route. The many inconveniences and delays encountered in having to cross the river from one side to the other in order to follow the marked channel, have become a source of great drawback to navigation.

It is not a hidden fact that owing to these inconveniences many large crafts have been withdrawn from this route.

Besides, the entrances to several of the canals require to be materially improved.

With a view of overcoming these difficulties I will mention some of the improvements of immediate importance and their requirements. I beg to refer you to the following, viz.:—

1. The eddy at the entrance of the Farran's Point canal lock No. 22 is subject to frequent difficulties to large vessels, and has already proved disastrous to some. The cause of the eddy is due to the fact that on the north side of Croils island, which

1 GEORGE V., A. 1911

belongs to the United States, there are two rocky points projecting into the river against which the current dashes, and the result is that at the foot of the canal water whirls around into the bay immediately below the lock.

The United States not being directly interested in improving the river channel at this point, the only alternative being left to overcome the effects of this eddy would be to cut off a part of Baker's Point immediately below the above mentioned bay, and dredge out a straighter course from the entrance of the lock east, thereby affording a free and uninterrupted flow of the river on the north side of the river.

2. Further up the river is Weaver's Point, situated about two miles west of the village of Aultsville, and which is an objectionable feature to the channel. East and west of it, there is deep water.

To straighten the channel this point could be materially reduced.

3. A mile further up is Prunner's shoal which would require to be dredged out and possibly a small portion of Cook's Point immediately below, in order to form a better alignment.

4. About two miles below Morrisburg, 'Jackass shoal,' which lies in the middle of the river, requires to be removed. This shoal is triangular shape, and although carefully marked, long tows of barges have been known to break up during heavy storms and foggy weather, some of the barges becoming total wrecks.

5. The next objectionable feature that presents itself is at the lower entrance of the Rapide Plat canal, at Morrisburg. The channel at this point could be materially improved by cutting down Rose's Point situated a mile below Morrisburg.

6. At Pine Tree Point, opposite which is the narrowest part of the St. Lawrence, about two miles east of the village of Iroquois.

For some distance below this point the vessels follow the American or south side of the river and have to cross over, opposite Iroquois, in order to get into the entrance to lock No. 25.

Complaints have frequently been made by vesselmen on account of having to follow such a long wandering course instead of a more direct one.

To overcome this, a cut through Pine Tree Point would require to be made, and from thence a continuous series of small shoals would have to be dredged out in order to reach the lock in a more direct course.

7. The last and probably the most objectionable features of the river channel, is at a place about two miles west of Iroquois, where the river takes a sharp turn south of Toussant's Island.

During the navigation season, it has happened frequently that boats get into trouble in making this sharp turn, coming down stream, by running aground on the shoals of Toussant's Island. It is also a fact that owing to this danger, navigation companies have withdrawn their vessels from the St. Lawrence route. This inconvenience would be released by cutting a new channel between the north side of Toussant's Island and Presqu'Isle of the mainland.

I trust that these observations will meet with favourable consideration, that surveys of these places may soon be ordered to be made, and that the department may shortly realize the necessity of undertaking some of the most important suggested improvements.

I have the honour to be, sir,

Your obedient servant,

L. N. RHEAUME,

Engineer in charge Ontario-St. Lawrence Canals.

W. A. BOWDEN, Esq., C.E.,

Chief Engineer, Department of Railways and Canals,
Ottawa, Ont.

SESSIONAL PAPER No. 20

ST. CATHARINES, ONT., March 31, 1910.

SIR,—I have the honour to report upon the maintenance and operation of the Welland canal and its branches for the fiscal year ending March 31, 1910.

NAVIGATION SEASON.

The canal opened for navigation on April 15 and closed December 20, 1909.

ACCIDENTS.

One serious accident occurred during the year, the Steamer *Gargantua*, bound up on May 16, 1909, carried away three gates in lock No. 21. Repairs were carried out quickly, spare gates being stepped and navigation resumed in twenty hours.

IMPROVEMENTS—NEW CANAL.

Mr. Joseph Battle has completed his contract to build dock south of the town of Welland, and the dock is now being used occasionally.

Mr. W. E. Phin has not quite completed his contract for widening the canal about a mile north of Welland. He is now trimming the slopes, and the whole work will be completed in a couple of months.

PORT COLBORNE.

Messrs. Hogan and Macdonnell have made slow progress with clearing up the excavation of the outer harbour. A good channel, 22 feet in depth, at a time when there is 14 feet of water on the sill of the lock is available to the elevator, and the contractors are now making an effort to have the whole harbour cleared and the contract completed by October 1.

The government elevator did a small amount of business last fall, and it is expected will do a fair business the coming year. The Grand Trunk Railway Company have decided to use it for lightering grain to Port Dalhousie instead of their own old elevator. The railway spur connecting the Grand Trunk with the elevator was completed in 1909 by the department.

REPAIRS—NEW CANAL.

Ordinary repairs to structures on the new canal were carried out during the year.

Mr. David Walker completed his contract for placing rip-rap on certain portions of the summit level where the old stone had been washed away by high water and the action of waves caused by passing vessels.

A dangerous leak broke through the bank at lock No. 19 weir on July 11, necessitating the drawing of the level, delaying navigation two days, during which time the leak was temporarily stopped, and while the water was out of the canal in March, 1910, an old dry wall at the head of the weir through which the water passed was torn down and rebuilt in concrete.

REPAIRS—OLD CANAL.

The water was not drawn from the old canal this spring, the foundations of the locks and weirs being considered in safe condition.

A new steel bridge, with concrete floor, was placed over the raceway at lock No. 2.

1 GEORGE V., A. 1911

WELLAND CANAL FEEDER.

The lock at the junction was unwatered in the spring of 1909, the foundation repaired and new gates placed in position.

The swing bridge across the feeder at Bolton road was entirely rebuilt on a pile and concrete foundation. A new wooden superstructure was built, the bolts and castings from the old bridge at Port Robinson lock being utilized.

PORT MAITLAND.

Mr. M. J. Hogan satisfactorily completed his contract for renewing superstructure of west pier at Port Maitland with concrete.

PORT ROBINSON.

The swing bridge across the head of the lock was replaced by the old bridge which formerly crossed the new canal a short distance north of the village, it being cut down to suit its new requirements.

WELLAND SHIP CANAL.

During the past year a large number of borings were taken along the route of the proposed Welland ship canal mentioned in my last report. This work will be continued during the coming year before a definite line is decided upon.

GENERAL.

The water in Lakes Erie and Ontario was kept well above normal during the whole of the year.

Mr. John E. Scott, overseer of the feeder division, was superannuated on May 1, 1909.

The following superannuated employees died during the year:—

Michael McCarthy, on June 2, 1909.

John E. Scott, on June 17, 1909.

Aaron Higgins, on December 7, 1909.

Attached is a statement of moneys collected for damages caused to canal property by different vessels; also a statement showing the highest and lowest recorded depths of water on the mitre sills of the locks at Port Dalhousie and Port Colborne for each month of the year.

I have the honour to be, sir,

Your obedient servant,

J. L. WELLER,

Superintending Engineer.

W. A. BOWDEN, Esq.,

Chief Engineer, Dept. Railways and Canals,
Ottawa, Ont.

SESSIONAL PAPER No. 20

WELLAND CANAL.

STATEMENT showing the highest and lowest depths of water on the Lower Mitre Sill,
Lock No. 1, New Welland Canal, Port Dalhousie, for the fiscal year ending March
31, 1910.

| Months. | Lower Sill. | | | | Months. | Lower Sill. | | | |
|-----------|-------------|-----|---------|-----|----------|-------------|-----|---------|-----|
| | Highest. | | Lowest. | | | Highest. | | Lowest. | |
| | Ft. | In. | Ft. | In. | | Ft. | In. | Ft. | In. |
| 1909. | | | | | 1909. | | | | |
| April | 13 | 8 | 12 | 7 | November | 12 | 8 | 12 | 4 |
| May | 14 | 6 | 13 | 6 | December | 12 | 4 | 12 | 1 |
| June | 14 | 6 | 14 | 2 | 1910. | | | | |
| July | 14 | 3 | 14 | 0 | January | 12 | 3 | 11 | 11 |
| August | 14 | 2 | 13 | 9 | February | 12 | 3 | 12 | 1 |
| September | 13 | 10 | 13 | 2 | March | 12 | 10 | 12 | 2 |
| October | 13 | 1 | 12 | 7 | | | | | |

STATEMENT showing the highest and lowest depths of water on the Upper Mitre Sill,
Lock No. 27, New Welland Canal, Port Colborne, for the fiscal year ending March
31, 1910.

| Months. | Upper Sill. | | | | Months. | Upper Sill. | | | |
|----------------|-------------|-----|---------|-----|-------------------|-------------|-----|---------|-----|
| | Highest. | | Lowest. | | | Highest. | | Lowest. | |
| | Ft. | In. | Ft. | In. | | Ft. | In. | Ft. | In. |
| 1909. | | | | | 1909. | | | | |
| April. | 13 | 2 | 10 | 8 | November. | 13 | 7 | 10 | 8 |
| May. | 13 | 6 | 11 | 8 | December..... | 16 | 0 | 13 | 0 |
| June. | 13 | 2 | 11 | 11 | 1910. | | | | |
| July. | 13 | 0 | 12 | 4 | January. | 12 | 2 | 9 | 8 |
| August..... | 12 | 6 | 12 | 1 | February..... | 11 | 0 | 10 | 2 |
| September..... | 13 | 0 | 11 | 4 | March..... | 11 | 11 | 10 | 6 |
| October... .. | 14 | 5 | 10 | 6 | | | | | |

1 GEORGE V., A. 1911

STATEMENT of Damages to Welland Canal property during the fiscal year ending March 31, 1910, and the amount paid on account of said damages.

| Date of Damage. | Name of Vessel. | Amount of Damage. | Amount Paid. | Date paid. | Where paid. |
|-----------------|--------------------------|-------------------|--------------|-------------|-----------------|
| 1909. | | \$ cts. | \$ cts. | 1909. | |
| May 12.... | Tug 'J. E. Russell'..... | 30 00 | 30 00 | May 14... | Port Colborne. |
| June 2.... | Str. 'Corrunna' | 26 94 | 26 94 | Aug. 3.... | Port Dalhousie. |
| May 16 ... | " 'Gargantua' | 6,485 66 | 5,000 00 | May 18.... | Port Colborne. |
| July 29 ... | " 'Robt. Wallace'..... | 100 10 | 100 10 | Aug. 24 ... | Port Dalhousie. |
| | | | | 1910. | |
| Nov. 11.... | " 'Samuel Marshall'..... | 100 05 | 100 05 | May 18.... | Port Dalhousie. |

SAULT STE. MARIE CANAL.

SUPERINTENDING ENGINEER'S OFFICE.

SAULT STE. MARIE, Ont., April 1, 1910.

SIR,—I have the honour to report upon the maintenance and operation of the Sault Ste. Marie canal for the fiscal year ending March 31, 1910.

The canal opened for traffic on April 21, 1909, and closed on December 16, having been in operation for 225 days. Traffic was interrupted on three occasions, amounting in all to about 14 days.

Traffic passing this point during the last season showed a very large increase over the figures for 1908, but amounted to about the same as in 1907. The traffic through the Canadian canal, however, showed an increase of 86 per cent over 1908 and 46 per cent over 1907, indicating that a larger proportion of the traffic went through the Canadian canal than heretofore, which was owing, largely, to the fact that the depth of water on the sill of the Canadian lock is about six inches greater than on the sill of the American lock, and also owing to the fact that the approaches to the Canadian canal have been greatly improved.

The usual exchange of ship's reports was made with the St. Mary's Falls canal from which a statistical report has been compiled and published by the United States canal authorities, of the traffic passing this point, and from which the following statement is derived.

SESSIONAL PAPER No. 20

| Year. | Number of Vessels passed. | Registered Tonnage of Vessels. | Total Freight Tonnage. | Cost of Carrying per mile ton. | Estimated Value of freight carried. | Percentage of Freight carried in Canadian Vessels. | Number of Passengers. |
|-------|---------------------------------|--------------------------------------|------------------------------|---|--|--|-----------------------------|
| | | | | Mills. | \$ | p. c. | |
| 1855 | 193 | 106,296 | 14,503 | | | | 1,270 |
| 1860 | 916 | 403,657 | 153,721 | | | | 9,230 |
| 1865 | 997 | 409,062 | 181,638 | | | | 19,777 |
| 1870 | 1,828 | 690,826 | 539,883 | | | | 17,153 |
| 1875 | 2,023 | 1,259,534 | 833,465 | | | | 19,685 |
| 1880 | 3,503 | 1,734,890 | 1,321,906 | | | | 25,766 |
| 1885 | 5,380 | 3,035,987 | 3,256,628 | | | | 36,147 |
| 1890 | 10,557 | 8,454,435 | 9,041,213 | 1 3 | 102,214,948 | 3 5 | 24,856 |
| 1891 | 10,191 | 8,400,685 | 8,888,759 | 1 35 | 128,178,208 | 4 0 | 26,190 |
| 1892 | 12,580 | 10,647,203 | 11,214,333 | 1 31 | 135,117,267 | 3 8 | 25,896 |
| 1893 | 12,008 | 8,949,754 | 10,796,572 | 1 1 | 145,436,957 | 4 1 | 18,869 |
| 1894 | 14,491 | 13,110,366 | 13,195,860 | 99 | 143,114,503 | 3 5 | 27,236 |
| 1895 | 17,956 | 16,806,781 | 15,062,580 | 1 14 | 159,575,129 | 3 75 | 31,556 |
| 1896 | 18,615 | 17,249,418 | 16,239,071 | 1 0 | 195,146,842 | 3 | 37,066 |
| 1897 | 17,171 | 17,619,923 | 18,982,755 | 83 | 218,235,927 | 3 0 | 40,213 |
| 1898 | 17,761 | 18,622,764 | 21,234,634 | 79 | 233,069,739 | 2 2 | 43,426 |
| 1899 | 20,255 | 21,958,347 | 25,255,810 | 1 5 | 281,364,750 | 3 1 | 49,082 |
| 1900 | 19,452 | 22,315,834 | 25,643,073 | 1 18 | 267,011,959 | 3 0 | 58,555 |
| 1901 | 20,041 | 24,626,976 | 28,403,065 | 99 | 289,906,865 | 4 0 | 59,663 |
| 1902 | 22,659 | 31,955,582 | 35,961,146 | 89 | 358,306,300 | 4 0 | 59,377 |
| 1903 | 18,596 | 27,736,444 | 34,674,437 | 92 | 349,405,014 | 6 0 | 55,175 |
| 1904 | 16,120 | 24,364,133 | 31,546,106 | 81 | 334,502,686 | 6 0 | 37,695 |
| 1905 | 21,679 | 36,617,699 | 44,270,680 | 85 | 416,965,484 | 5 0 | 54,204 |
| 1906 | 22,155 | 41,098,324 | 51,751,080 | 84 | 537,463,454 | 5 0 | 63,033 |
| 1907 | 20,437 | 44,087,974 | 58,217,214 | 80 | 569,830,188 | 5 0 | 62,758 |
| 1908 | 15,181 | 31,091,730 | 41,390,557 | 69 | 470,141,318 | 7 0 | 53,287 |
| 1909 | 19,204 | 46,751,717 | 57,895,149 | 79 | 626,104,173 | 6 0 | 59,948 |

ACCIDENTS.

On June 9 last, at 1.45 p.m., while the Canadian Pacific Railway Company's steamer *Assiniboia* was in the lock, the *Crescent City* of the Pittsburg Steamship Company entering the lock at the upper end, and Mr. C. S. Boone's dredge No. 10 was lying near the end of the lower north entrance pier the steamer *Perry G. Walker*, of the Gilchrist Transportation Company, entered the lower approach to the canal and attempted to make a landing at the north pier, but through some misunderstanding of the signals the engine failed to reverse in time and the steamer was carried against the south lower main gate, forcing it back and allowing the north gate to fall over. The force of the current carried the *Walker* back, her bow swinging to the south and the *Assiniboia* was carried down against her, striking a glancing blow on the starboard side amidships.

The *Crescent City* made every effort to retard her motion by getting lines out and reversing her engine, so as to give the other vessels time to get out of the way, but she was carried against the *Assiniboia*, striking the latter a glancing blow on the starboard quarter.

The *Walker* also collided with the north and south entrance piers, doing serious damage to both of them.

The *Crescent City* dropped on to the breast wall of the upper main gates, carrying away the timber work from the top and lower face of the wall and also breaking off the corner of the masonry.

Both the *Assiniboia* and *Crescent City* collided with the lower main gates in passing, breaking both gates, the north gate on a line parallel to the timber and the south gate on an oblique line from the centre of the bottom timber to about the centre of the toe of the gate.

1 GEORGE V., A. 1911

All the vessels made their way to the American side of the river, with the assistance of tugs, where they were examined by divers. The *Assiniboia*, after waiting some hours and making sure that she was not seriously damaged, proceeded on her way to Owen Sound. The *Walker*, after making some temporary repairs was able to proceed up through the American lock on the 12th, on her way to Superior. The *Crescent City* sank at the wharf on the American side of the river, but was raised three or four days later and proceeded on her way to Cleveland.

The upper main gates, which were open at the time of the accident, remained in position for a few moments, but were finally drawn away from the wall by the current and torn from their fastenings.

The auxiliary gates were made secure and then attention was given to the closing of the movable dam, which work was accomplished at 9 p.m., with the exception of six wickets which jammed and one wicket frame which buckled so badly that it could not be used, and was hoisted up out of the way. The six wickets were forced down to place with fifty ton hydraulic jacks.

The space, 6 feet x 25 feet, which should have been closed by the broken wicket and frame, was closed by making a bulkhead of 10-inch x 12-inch x 24 feet pine timbers and forcing it down with hydraulic jacks. In this operation two fifty-ton and one one-hundred ton hydraulic jacks were used, and the bulkhead forced down 24 feet, when it refused to go further, and the final 1 foot of space closed by loading a stick of timber with sand bags and lowering it down until the current took it in to place.

This placing of the bulkhead proved to be a work of considerable difficulty, owing to the fact that the timber had to be forced over the rivet heads and brace rods on the upper side of the frames. Had the surface of the frames been smooth much less difficulty would have been experienced.

The openings between the wicket frames were partly closed with planks, bundles of straw and sand bags and on the afternoon of the 13th it was decided to make an attempt to close the auxiliary gates, the necessary tackle having previously been got ready.

At 3.10 p.m. on the 13th, with the current running at three miles per hour, the auxiliary gates were safely closed, having been severely strained during the operation.

Forty-five minutes after the gates were closed the water had risen to the upper level between the gates and the dam, giving an idea of the amount of leakage through the dam.

The upper and lower guard gates were then closed, considerable difficulty being experienced in closing the latter owing to the large amount of sediment deposited around the gates, and the pumps were not started until 2 a.m. on the 14th. The work of pumping out the lock proceeded very slowly, as the culvert leading to the pumps was badly clogged.

After the lock was unwatered, it was found that the breast wall at the upper main gates was swept clean of sheaves, timber work, &c., and the top corner of the lower side of the wall chipped off. New sheaves, which were on hand, were placed, new timbers put in position and the wall repaired with concrete.

In the bottom of the lock, immediately below the upper breast wall, both thicknesses of planking were torn off for a considerable area and the timbers over one culvert broken for an area of about 10 feet square, apparently by the south main gate when it was carried away. These timbers and planking were replaced.

Thirty-six of the forty gratings, which cover the entrance to the culverts at the upper end, were torn off and carried down into the culverts. These had to be taken to pieces, straightened and replaced.

A very large quantity of sand and stones, carried down from above the lock, was deposited at both ends of the lock, and in the culverts, all of which was removed.

Three light cables, which crossed the lock at the lower end and which were carried away, were replaced.

SESSIONAL PAPER No. 20

All of the work in the lock bottom was completed at noon on the 17th, the water let into the lock, and the work of raising the dam commenced.

The damaged lower main gates were removed and placed behind the lower entrance pier. The upper main gates were located by sweeping, on the bottom in the lower entrance and were raised and placed behind the lower entrance pier.

The lower entrance was swept and a large deposit found immediately below the lock, all of which was removed by a dredge, and a derrick scow with a diver.

The spare upper main gates which were built last spring were stepped at 4 p.m. on the 18th, but owing to some difficulty in the fit of the gates, the lock was not opened for traffic until 5.30 p.m. on the 21st.

The locking of vessels was resumed with the new solid timber upper main gates and the old frame auxiliary gates, the latter being used in place of the lower main gates which were carried away. The only other gates left were the old frame upper and lower guard gates. These frame gates were all in bad condition, more particularly the auxiliary gates, and it was thought best to abandon them and replace them with solid timber gates. A contract was, therefore, entered into with Messrs. Roger Miller & Sons to build seven pairs of gates, that is, one pair of upper guard gates, one pair of lower guard gates, one pair of upper main gates for spare, two pairs each of lower main and auxiliary gates, one pair of each being for spare; so that when the contract for the building of gates is completed the lock will be equipped throughout with solid timber gates and with spare gates for the upper and lower main and auxiliary gates.

A full set of solid timber gates will be stepped by the opening of navigation this season, and all gates will be equipped with fastenings so that when they are pulled back into the recesses they will be locked to the wall, and thus be secured from being carried away in case of another accident of this kind.

The movable dam, which on the whole was a decided success, developed a number of weaknesses, more particularly in the bracing of the wicket frames. This bracing on the lower end of the frames consisted of 1-inch rods, most of which bent, allowing the frames to buckle; one frame being as much as 5 feet out of line at one end.

A great deal of difficulty was experienced in forcing the bulkhead down and also in placing planks over the openings between the frames on account of the brace rods and round rivet heads which interfered. The dam could be much improved by making the upper face of the frames smooth, by countersinking the rivets and placing the bracing on the inside of the frame, so that timber for planks could be forced down, if it became necessary to close the water off completely.

The cribwork of the lower entrance piers, where damaged by the *Walker*, has since been repaired.

At noon on September 5 the steamer *A. H. Hawgood*, belonging to Messrs. Hawgood & Co., of Cleveland, while downbound and crossing over from the south to the north pier, failed to answer her helm readily and came against the north wall with such force as to turn the float up on edge.

A hole 2 feet x 6 inches x 6 inches was made in her No. 1 port tank, which filled and the vessel settled about two and one-half feet to port. She was backed up to the end of the north pier and lightered and was passed down through the lock at 2 a.m. Traffic was not interrupted.

At 10 p.m. on September 25 the steamer *Midland King*, of the Midland Navigation Company, when approaching the lock from below, sheared to starboard, striking the lock wall, crushing in her fender streak and bending a plate between frames on the starboard side.

On November 26, while the steamer *Empress of Midland*, of the Midland Navigation Company was working her way towards the lock, along the north upper entrance wall, with two linemen ashore, the lock valves were partly opened, creating a current. The vessel was checked with her lines, which parted, allowing her to swing across the canal with her stern against the south wall. The captain then attempted to

1 GEORGE V., A. 1911

swing the stern of the vessel back by working the wheel when the blades of the latter were stripped off by striking the wall.

On December 27, while repairs to the lock were in progress, one man fell from the top of the wall down to the bottom of the lock and was instantly killed, while another man who was on the lock bottom had his arm broken by a falling timber.

PRECAUTIONS TAKEN TO PREVENT ACCIDENT TO THE LOCK.

Owing to the accident to the canal on June 9 last it was considered necessary to take precautions to prevent such accident in future, and to accomplish this end rules were posted up in the office to regulate the movement of boats approaching the canal. To see that these rules were carried out and to assist boats in landing at the piers, two extra linemen were appointed and stationed, one on the south pier in the lower entrance and the other on the north pier in the upper entrance.

All vessels are expected to come to a stop at the entrance piers, unless the gates are open for them, and to put linemen ashore. They are then permitted to enter the lock with their lines ready to check the movement of the vessel if necessary.

CONGESTION OF TRAFFIC.

Owing to the large increase in traffic during the last season, and also owing to the fact that the movement of vessels is not continuous, some days there being comparatively few boats and on others a great many, it was found impossible on busy days to accommodate all the waiting vessels at the piers, and a number were compelled to anchor out in the river to await their turn. As the place of anchoring is about two miles above the lock and beyond the control of the lockmaster, it became necessary during the latter part of last season to put on a patrol boat to regulate the movement of these vessels, send them to the lock in their proper turn and prevent them from racing for the lock. These arrangements worked well and it would seem desirable in view of the probable large increase in traffic in the future to continue them permanently.

INTERRUPTIONS TO TRAFFIC.

On two occasions during the past season the Poe lock of the American canal was out of commission, on the first occasion for three days, when the Canadian canal was working continuous for 101 hours passing 184 vessels of a total net registered tonnage of 553,287; and on the second occasion for eight days when the Canadian canal was in continuous operation for 264 hours passing 460 vessels of a total net registered tonnage of 1,372,145.

On the latter occasion the blockade of vessels proved to be quite serious, there being at one time 87 vessels waiting in the river above and 25 vessels waiting in the river below the canal.

Most of these vessels were delayed from 60 to 100 hours, while four vessels, which were too wide for the Canadian lock, were delayed a week. An estimate of the loss to the vessels delayed, based on their earning capacity, shows a loss of \$250,000.

OBSTRUCTION TO NAVIGATION.

A great deal of trouble was experienced during last season by vessels grounding near the end of the north upper entrance wall. Soundings taken at this point showed a deposit of clay and stones about 25 feet in width by 150 feet in length. This shoal was removed by a dredge and derrick scow.

SESSIONAL PAPER No. 20

PAVEMENTS.

Owing to the numerous accidents which have occurred to lockmen and others in walking along the lock wall where lines from vessels were stretched across, a concrete pavement was constructed parallel to the lock and behind the mooring posts.

DRAFT OF VESSELS.

It has been found in the past that the marks on the bow and stern of vessels, indicating their draft, do not give the correct draft of the vessels, owing to the fact that loaded vessels will sag amidships as much as six inches when loaded. This has resulted in vessels being locked through with a greater draft than that recommended and the gate cables were frequently cut, causing considerable delay. This suggests the desirability of having all vessels marked amidships as well as at bow and stern, and an attempt was made during last season to have vessel owners mark their vessels in this way.

RANGES.

At the opening of last season the rear lower entrance range tower was blown down in a storm, and a temporary range was established by using the front range for a back range and erecting a temporary range in front. The rear tower has since been erected and the range restored as before.

In the upper entrance the old range was abandoned during last season owing to the dredging operations which were in progress and a temporary range erected. As the dredging of the channel was completed and a new centre line adopted, two new steel towers were erected for front and back ranges, and the old wooden beacon which formerly acted as a front range will shortly be removed.

NORTH UPPER ENTRANCE PIER.

This pier, which had been in a bad condition for some time, collapsed at the shore end during the early part of last season, and it was decided to dredge out the old pier and rebuild it on a line continuous with the north entrance wall. Accordingly a contract was entered into with Mr. J. J. Collins on September 18, 1909, to rebuild the pier, but owing to the lateness of the season nothing was done. This work will be commenced, as soon as the weather will permit, this spring.

NORTH LOWER ENTRANCE PIER.

The portion of this pier above water is in bad condition, and will be required to be overhauled. A portion of this work will be done during the coming season and the remainder carried over another year.

I have the honour to be, sir,

Your obedient servant,

J. W. LeB. ROSS,

Superintending Engineer.

W. A. BOWDEN, Esq.,
Acting Chief Engineer,
Dept. Railways and Canals,
Ottawa, Ont.

1 GEORGE V., A. 1911

SAULT STE. MARIE CANAL.

COMPARATIVE STATEMENT since Opening of Lock, Sept. 9, 1895.

| | Season. | Increase or decrease over previous season. | Season. | Increase or decrease over previous season. | Season. | Increase or decrease over previous season. |
|---------------------------------------|-------------------------|--|-----------------------|--|-----------------------|--|
| | 1895. | | 1896. | | 1897. | |
| Period open | (Sept. 9. Dec. 6. | | May 7. Dec. 10. | | April 21. Dec. 14. | |
| Canadian registered tonnage | 125,240 | | 586,571 | 461,331 | 398,343 | —188,228 |
| U.S. registered tonnage | 623,131 | | 3,810,794 | 3,187,663 | 3,406,018 | —404,776 |
| Total tonnage | 748,371 | | 4,397,365 | 3,648,994 | 3,804,361 | —593,004 |
| Lockages | 698 | | 3,042 | 2,344 | 2,976 | —66 |
| Vessel passages | 1,193 | | 5,189 | 3,996 | 4,376 | —813 |
| Time passing lock | 212 h. 27 m. | | 984 h. 22 m. | 771h. 55m. | 684 h. 11 m. | 300h. 11m. |
| Average time lockage | 18 26 m. | | 18.42 m. | | 13.97 m. | |
| | 1898. | | 1899. | | 1900. | |
| Period open | (April 11. Dec. 9. | | April 26. Dec. 20. | | April 23. Dec. 16. | |
| Canadian registered tonnage | 403,331 | 4,988 | 561,759 | 158,428 | 579,528 | 17,769 |
| U.S. registered tonnage | 2,354,606 | —1,051,412 | 2,388,441 | 33,835 | 1,616,139 | —772,302 |
| Total tonnage | 2,757,937 | —1,046,424 | 2,950,200 | 192,263 | 2,195,667 | —754,533 |
| Lockages | 2,520 | —456 | 2,610 | 90 | 2,205 | —405 |
| Vessel passages | 3,712 | —664 | 3,820 | 108 | 3,163 | —657 |
| Time passing lock | 609 h. 30 m. | —74h. 40m. | 643 h. 16 m. | 33h. 46m. | 541 h. 24 m. | —101h 52m. |
| Average time lockage | 14.51 m. | | 14.78 m. | | 14 73 m. | |
| | 1901. | | 1902. | | 1903. | |
| Period open | (April 20. Dec. 21. | | April 1. Dec. 20. | | April 2. Dec. 13. | |
| Canadian registered tonnage | 776,331 | 196,803 | 1,366,087 | 589,756 | 1,616,385 | 250,298 |
| U.S. registered tonnage | 1,672,631 | 56,492 | 3,238,069 | 1,565,438 | 3,145,020 | —93,049 |
| Total tonnage | 2,448,962 | 253,295 | 4,604,156 | 2,155,194 | 4,761,405 | 157,249 |
| Lockages | 2,906 | 701 | 3,418 | 512 | 3,242 | —176 |
| Vessel passages | 4,243 | 1,080 | 5,169 | 926 | 4,418 | —751 |
| Time passing lock | 724 h. 38 m. | 183h. 14m. | 925 h. 57 m. | 201h. 19m. | 883 h. 10 m. | —42h. 47m. |
| Average time lockage | 14.96 m. | | 16.25 m. | | 16.34 m. | |
| | 1904. | | 1905. | | 1906. | |
| Period open | (April 30. Dec. 26. | | April 10. Dec. 20. | | April 10. Dec. 20. | |
| Canadian registered tonnage | 1,557,335 | —59,050 | 1,799,336 | 242,001 | 1,959,186 | 159,850 |
| U.S. registered tonnage | 2,637,090 | 471,930 | 3,739,224 | 1,066,134 | 4,399,990 | 660,766 |
| Total tonnage | 4,230,425 | 530,980 | 5,538,560 | 1,308,135 | 6,359,176 | 820,616 |
| Lockages | 3,012 | —230 | 4,031 | 1,019 | 4,152 | 121 |
| Vessel passages | 4,092 | —326 | 5,853 | 1,761 | 5,913 | 60 |
| Time passing lock | 811 h. 28 m. | 71h. 42m. | 1060 h. 38 m. | 249h. 10m. | 1131 h. 23 m. | 70h. 24m. |
| Average time lockage | 16.16 m. | | 15.79 m. | | 16.35 m. | |
| | 1907. | | 1908. | | 1909. | |
| Period open | (April 22. Dec. 15. | | April 21. Dec. 15. | | April 21. Dec. 16. | |
| Canadian registered tonnage | 2,288,349 | 329,143 | 2,556,552 | 268,203 | 2,912,586 | 356,034 |
| U.S. registered tonnage | 9,887,633 | 5,487,643 | 7,038,389 | —2,849,244 | 14,899,562 | 7,861,173 |
| Total tonnage | 12,175,982 | 5,816,786 | 9,594,941 | —2,581,041 | 17,812,148 | 8,217,207 |
| Lockages | 4,596 | 444 | 3,667 | 929 | 5,046 | 1,379 |
| Vessel passages | 6,153 | 240 | 5,344 | 809 | 6,420 | 1,076 |
| Time passing lock | 1378 h. 58 m. | 247h. 35m. | 1258 h. 50 m. | —120h. 8m. | 1853 h. 45 m. | 504h. 55m. |
| Average time lockage | 18.10 m. | | 20.60 m. | | 17 31 m. | |

SESSIONAL PAPER No. 20

RIDEAU CANAL.

SUPERINTENDING ENGINEER'S OFFICE,

OTTAWA, April 1, 1910.

SIR,—I have the honour to submit herewith my report on the Rideau canal for the fiscal year ending March 31, 1910.

Navigation opened at Ottawa on May 1, 1909.

Navigation opened at Kingston Mills on May 1, 1909.

Navigation closed at Ottawa on November 30, 1909.

Navigation closed at Kingston Mills on November 29, 1909.

My last report which was written a few days before the spring freshet commenced last year, stated that I did not anticipate any serious damages therefrom, but I regret to have to record a most serious washout in the bank of the river at Black Rapids lock station, where the new dam abutted into it, on the Gloucester side of the river—a washout which delayed through navigation to Ottawa until the middle of June, as the break could not be closed until the water had subsided.

Particulars of this accident will be found under the heading of 'Black Rapids' in this report.

With the exception of the delay at the above mentioned point, navigation was uninterrupted for the whole season.

This year the spring freshet commenced the first week in March—a phenomenally early break up; earlier in fact than has ever been recorded in the history of the canal, and the water rose so fast that the work of rebuilding the west bulkhead at Hogsback (which was going on at the time) had to be temporarily abandoned, as it could not be completed until after the water had subsided. The apron is still too deeply submerged to resume work, but we have a month yet before navigation opens, and as the water must surely fall now that the freshet is subsiding, I have no anxiety about having the structure ready for navigation by May 1; in fact one week will be sufficient to raise all the bents, as all the sills except one are in place and the rest of the structure is framed ready for erection.

The principal works and repairs executed along the line of the Rideau canal during the past fiscal year ending March 31, 1910, are as follows:—

OTTAWA LOCK STATION (8 Locks and Basin).

Two pairs of lock gates for locks Nos. 5 and 6 were framed last summer, and are now being hung in place. The wide flight of stone steps on each side of lock No. 3, which had been dangerous on account of the disintegration of the stone, were covered last summer from top to bottom with a three-inch coat of fine concrete. The result is most satisfactory as this cement coating has stood the frost of last winter without a crack; and now these two fine flights of steps—which are sixteen feet wide, and each of which contains 20 steps—are as good as new. Sundry small repairs were made to the wharfs and roads round the canal basin.

A large quantity of stone was taken from the excavation for the new Grand Trunk railway hotel at the head of the locks—the stone having been given free by the contractor, Mr. John O'Toole, and taken on our scows to Black Rapids lock station; and there used for filling the new cribs built last winter. The Grand Trunk Railway Company is now, by permission of the Department, taking down the old cribwork on

1 GEORGE V., A. 1911

the east side of the basin, and building in its place a fine concrete retaining wall, from Sappers to Laurier bridges.

OTTAWA EAST SWING BRIDGE.

The approaches and swing span were replanked. An iron pipe railing on cast standards was erected by contract with the International Marine Signal Company, of Ottawa. Small repairs were made to the timber rest piers, and the bridge and the bridge keeper's house were painted.

BANK STREET SWING BRIDGE.

The east pier of the bridge (which was being built when I made my last report) was completed. The turntable was repaired and small general repairs made. The bridge keeper's house and the bridge were painted.

CONCESSION STREET SWING BRIDGE.

Small repairs were made to the flooring of the bridge, and the bridge and the bridge keeper's house were painted. The roadway between this bridge and the St. Lawrence and Ottawa Railway bridge (Canadian Pacific Railway) across the top of Dow's lake dam, was raised and graded with gravel; the work being done by contract with Mr. Owen McCarten, of Billings Bridge, Ont.

HARTWELL'S LOCK STATION (2 Locks).

The lockmaster's and lock labourers' houses were painted. About 900 feet of the eastern side of the cut were rip-rapped with stone to save the banks, and sundry repairs were made to the station generally.

HOGSBACK LOCK STATION (2 Locks and 1 Swing Bridge).

The lower end of the apron below west bulkhead was extended about 70 feet down stream, and has answered its purpose well; but it requires to be still further carried out this summer, to reduce the steep pitch of the water and ice during freshets, to save the scouring out of the soft shale rock at its foot. A new double boom was placed across the lay above the bulkheads to anchor the ice. A considerable length of the cut was rip-rapped with stone to save the erosion of the banks, which work has been gradually carried on for the past few years, and I hope this summer will complete it.

The west bulkhead which had become unsound from age, was taken down, the new one having been framed last year. The front of this structure was excavated and sheeted down to the rock; but before the bents could be erected, the unusually early break up, which occurred the first week in March, fully one month ahead of its usual time, flooded the site of the work, and we were consequently forced to cease work temporarily, until the water subsided. All the new sills, excepting one, were in place, and nothing remained but to erect the bents upon them and connect them with the roadway at each end.

This could have been done in a week, had the water not stopped the work; and it will be finished before navigation opens. No damage of any kind occurred, and we saved all the framed timber which was lying ready to erect. The only inconvenience occasioned was the interruption to highway travel across the bulkheads, but as this roadway is not recognized as a bridge (having been always posted 'No thoroughfare' at each end), no one has any real grievance at being turned back; but in order to protect the public, barriers have been erected at each end, and a night watchman placed in charge until the crossing is re-established.

SESSIONAL PAPER No. 20

The rest and protection piers above the upper lock were rebuilt, the lockmaster's house was painted, and sundry repairs were made to the station in general.

BLACK RAPIDS LOCK STATION (1 Lock).

As stated in the preamble to this report, very serious damage was done by the washing out of the river bank on the Gloucester side, at the point where the new dam was built into it. The freshet in 1909 was the highest ever recorded, and the water cut round the end of the dam abutment and into the banks (which are nothing but sand) to such an extent that the dam was left standing about 200 feet out in the river. An enormous quantity of sand was cut out of the banks which are about 25 to 30 feet high; but fortunately it found its way into deep portions of the river below, and shoals were formed away from the channel, so that no obstruction to navigation arose from this cause.

To close this breach in order to impound the water for navigation, a coffer dam of square timber cribwork had to be put in, extending diagonally upstream for 375 feet; and great difficulty was experienced in connecting it with the shores, on account of the sand formation, which was eaten away by the water whenever a junction with the banks was made. Eventually, however, this was done; much vexatious delay having occurred whilst waiting for the first volume of the freshet to subside, and the cribs were placed in position and loaded with sacks of sand (no stone being available).

The next difficulty was the caulking of these cribs, as after they were sheeted with 3-inch plank, the water continually scoured underneath them, as the bottom was also fine sand and boulders; but in the end the leakage was finally overcome by means of large canvas tarpaulins, each being 200 feet x 40 feet, which were nailed to the sheeting and held out in the water by ropes and gradually allowed to be drawn down by the suction of the leakage. Sand and clay were then piled on top of the canvas, and the leakage stopped sufficiently to maintain navigation and allow of the repairs being made to the main dam.

All this work involved a delay to navigation of about six weeks, but when it is remembered that the coffer dam had to be built in the middle of a rushing river over 12 feet deep, with no anchorage but sand hills, no foundation but sand, and no ballast but sand bags; and also the fact that all the materials used in its construction had to be transported eleven miles to the site of the work over country roads, and at a season of the year when all roads are at their worst, I think it will be admitted that no undue delay was occasioned to the boatmen.

By direction of Mr. M. J. Butler, late chief engineer, the main dam was extended 100 feet, and a wing crib was built both above and below the dam, and up the gully into the bank.

The whole of the main dam has been covered with $\frac{1}{4}$ -inch steel plate; the plate having been purchased from Messrs. Drummond, McCall & Company, of Montreal, and the contract of laying the same having been awarded to the International Marine Signal Company of Ottawa. The new dam has stood the present freshet well, but there is a troublesome leakage under the wing crib at the point where it turns up the gully. I am of the opinion that 10-inch x 12-inch square piles are required all round the face of this portion of the crib, as sheeting cannot be driven down by manual power through the sand and boulders; but a pile driver can drive square timber down, and in this way I hope check the leakage. I have sent our pile driver down to the spot, and the piles will, I hope, arrive in two weeks, which will give us two weeks to drive them before navigation opens, after which it is proposed to deposit clay by means of a dredge and dump scows to completely staunch all the leakage.

The stone filling for all this work, amounting to over 3,000 cubic yards was supplied from our own quarry; but taken out and delivered into the cribs by contract with Mr. Bruley, of Billings' Bridge, Ont. The lower gates of the lock were rebuilt and the lower mitre sill renewed and concreted—the latter work necessitating the

1 GEORGE V., A. 1911

pumping out of the lock. The waste weir bulkhead was also renewed, and a new stone filled cribwork facing was built from the lock to the waste weir. The lay-by piers above the lock were also rebuilt, and repairs were made to the ice breakers in the river.

LONG ISLAND LOCK STATION (3 Locks and 1 Swing Bridge).

A new boom was framed and laid at the head of the island, and repairs made to the tops of the piers at the same place. Repairs were made to the piers at the White Horse dam, and sundry small repairs made to the station in general.

MANOTICK BRIDGE.

The bridge was painted by the bridge-tender, and sundry repairs made to the flooring and piers.

WELLINGTON BRIDGE.

Sundry small repairs were made to the flooring of the bridge by the bridge-tender. Next winter, however, the entire superstructure requires to be raised off the piers, and the latter rebuilt down to low water mark.

BECKETT'S LANDING BRIDGE.

No repairs were made to this bridge.

BURRITT'S RAPIDS LOCK STATION (1 Lock).

Extensive repairs were made here this winter to the south chamber wall and both upper wings of the lock, which were taken down and rebuilt—the lock having to be dammed above and below and pumped out for this purpose.

The lower gates were also renewed. A considerable stretch of the north side of the upper cut was faced with stone and filled up where it had been washed away—thus continuing the work commenced last year. Sundry small repairs were made to the station in general.

BURRITT'S RAPIDS BRIDGE.

The only repairs at this bridge consisted of pointing the masonry of the piers, which work is still in progress.

NICHOLSON'S LOCK STATION (2 Locks and 1 Swing Bridge).

Two pairs of lock gates were renewed, *i.e.*, the upper gates of the lower and upper locks respectively, and two new sluice frames were put in. The upper wing walls, upper sill and gate recesses of the upper lock, were taken down and rebuilt with new stone. The lower sill of the upper lock was repaired, concreted and planked, and the chamber walls grouted. The old timber waste weir at the head of the upper cut was taken out and a masonry weir built in its stead. Sundry small repairs were also made to the station in general.

CLOWES LOCK STATION (1 Lock).

Small repairs were made to the station generally, and some stumps were blasted out of the river above the lock, during the winter.

SESSIONAL PAPER No. 20

MERRICKVILLE LOCK STATION (3 Locks, 2 Basins, 2 Bridges).

The north waste weir, which was slightly damaged by ice a year ago, has been repaired; as were also the stop-log piers at the head of the cut. Some new stop-logs were framed, and sundry small repairs were made to the station in general.

KILMARNOCK LOCK STATION (1 Lock and 1 Bridge).

The timber bulkhead was taken down and rebuilt during the winter, and repairs made to the back dam in the break ground. This dam is merely a pile of stones and cannot be made tight within a reasonable expenditure. A new dam should be built further up the river; and I intend making an examination of the river for this purpose during the coming summer.

EDMONDS LOCK STATION (1 Lock).

The by-wash was re-covered and planked. Two new swing bars were framed and placed on the lock gates. Some wire fencing was erected round the lock house, and sundry small repairs were made to the station generally.

OLD SLY'S LOCK STATION (2 Locks and 1 Bridge).

Sundry small repairs were made to the station in general.

SMITH'S FALLS COMBINED LOCK STATION (3 Locks, 1 Basin, 2 Bridges).

The old frame addition to the lock house was torn down and rebuilt, and the whole building re-shingled. A new flight of steps was built on the south side of the upper lock near the band stand to save the lock slopes. A new circular rest wall of concrete was laid under the heel of the swing bridge, and two new swing bars were framed for the lock gates. The work of filling up the south side of the basin was continued last year as usual, and now a large area of this useless stretch of water is filled up, and is proving a great saving in water, and also has reduced the leakage at that point. The work will be continued this year.

SMITH'S FALLS DETACHED LOCK STATION (1 Lock and 2 Bridges).

A new wharf was built at the head of the lock, which will prove of great value to the boats and also be the means of saving much of the water which has hitherto been required to fill the basin. This will not be required as much now as the boats need not go down into the basin, as they can stop at the new wharf. Our dredge excavated a small channel above the dam in the vicinity of the boat houses, in order to give the numerous motor boats a means of access to the main channel. The turntable of the swing bridge was repaired, and sundry small repairs were made to the station generally. The location of the Canadian Northern railway which was laid out along the dam and across the lock, having been objected to on account of being too close to our works, was changed, and is now located about 400 feet above the lock where it will not interfere in any way with navigation.

POONAMALIE LOCK STATION (1 Lock).

The upper lock gates were taken out and repaired, and small repairs were made to the upper sluices. The stop-log piers at the head of the upper cut were also rebuilt from low water line up. The foot of the long concrete dam was repaired where it has been damaged by ice and water, and sundry small repairs were made to the station generally.

1 GEORGE V., A. 1911

I may state that the lockages at this station have increased very largely during the last two seasons; the total number last year being 3,076, an increase of nearly 500 over 1908, and of nearly 900 over 1907.

BEVERIDGES LOCK STATION (2 Locks and 1 Bridge).

The back dam was repaired with clay. The swing bridge was re-planked with 3-inch plank, and some culverts in the cut were repaired. Repairs were made to the lock sluices, and the cribwork protection piers below the lower lock in Rideau lake, which had been heaved up by ice, were replaced and respiked and refilled with stone. Small repairs were made to the lock house and to the station generally.

PERTH BRANCH (Basin and 4 Bridges).

Gore Street bridge was painted. The culvert at Craig Street bridge was repaired, and the roadway from Beckwith street bridge to the Canadian Pacific railway car shops was graded and gravelled. About 900 feet of dry stone walling was built along the face of the canal to protect the clay banks, and sundry small repairs made to wharfs and basin. Bridge-tender Russell deserves the greatest credit for the improvements he has made to the basin and surroundings (which are in the heart of the town), in the shape of the grass lawns and flower beds which he has made and which beautify the spot, and which are much appreciated by the residents of Perth.

BOB'S LAKE RESERVOIR DAM.

No repairs were made last year to this dam, which feeds the Tay river, and which is situated about 24 miles above Perth.

OLIVER'S FERRY BRIDGE.

Sundry small repairs were made by the bridge-tender.

THE NARROWS LOCK STATION (1 Lock and 1 Bridge).

The old by-wash was taken out and a new one framed and put in. Sundry small repairs were made to the station generally.

NEWBORO LOCK STATION (1 Lock and 1 Bridge).

Both the upper wing walls of the lock, the gate recesses, and portions of the chamber walls, were taken down and rebuilt. For this work the lock had to be dammed above and below and pumped out. The work was delayed by the early freshet this year, which filled up the lock; but the dams were raised and strengthened, and the work completed after about ten days delay. Both the upper and lower mitre sills were re-bolted, concreted and planked. Repairs were made to the piers at the head of the cut, and also below the lock. Two small timber piers were built in the lake below the lock, to mark the shoals at Whitehall and Fingerboard islands respectively.

CHAFFEY'S LOCK STATION (1 Lock and 1 Bridge).

One pair of lock gates were renewed, and the swing bridge across the lock was rebuilt. Two new swing bars were framed. Sundry small repairs were made to the lockmaster and lock labourer's house.

DAVIS'S LOCK STATION (1 Lock).

The lay-by piers at the head of the lock were taken down and rebuilt, and the dam was protected in front of the storehouse by means of cribwork. Sundry small repairs were made to the station generally.

SESSIONAL PAPER No. 20

JONES'S FALLS LOCK STATION (4 Locks, 1 Basin, 2 Bridges).

Two of the lock recesses were concreted and repaired. The swing bridge across the upper lock was taken down and rebuilt. Considerable gravel and debris were cleaned out of the lower lock by our diver, who also repaired the lower mitre sill. A small wharf was built at the head of the upper lock for the accommodation of small boats. The two bridges were painted and sundry small repairs were made to the roads and to the dam, and to the station in general.

MORTON DAM.

Some gravel was placed in front of the dam, and small repairs were made to the planking and handrailing. .

BRASS' POINT BRIDGE.

No repairs were made to the bridge last year.

BREWER'S UPPER MILLS LOCK STATION (2 Locks, 1 Basin, 1 Bridge).

A considerable quantity of woven wire fencing was erected from the 'Roundtail' to the end of the reserve on the north side of the canal—a distance of over a mile. This was rendered necessary on account of long standing friction between the lock officials and the owner of the land adjoining—each side paying half the cost of the same. Sundry small repairs were made to the station in general.

BREWER'S LOWER MILLS LOCK STATION (1 Locks, 1 Bridge).

The old swing bridge across the lock was taken down and rebuilt; and sundry small repairs were made to the station in general.

KINGSTON MILLS LOCK STATION (4 Locks, 1 Basin, 2 Bridges).

The long bridge across the waste water channel, which was built of timber on trestle bents, was taken down, and a fine structure of steel on concrete piers substituted therefor. The contract for the substructure, consisting of two concrete abutments, rip-rap, dry stone walling, roadway, fencing, &c., &c., was awarded by contract from the department to Messrs. Fallon Bros., of Cornwall, Ont., and the steel superstructure was awarded to the Hamilton Bridge Works. The old addition to the block-house was partly taken down and enlarged, and sundry small repairs were made to the other lock labourers' houses. Three hundred cubic yards of stone were quarried and placed where required on the embankments by contract with Mr. J. Keenan, of Kingston Mills. Small repairs were made to the sluice frames and to the station generally. The basin wall is showing signs of age and will require to be rebuilt next year.

GENERAL.

The usual spring repairs of pointing and grouting the lock masonry, painting of gates and bridges, &c., were made by our lock labourers. The stone for the repairs to the locks last winter was taken out and cut in Westport quarry, where we moved a year ago from Elgin, as the latter quarry was exhausted. The stone is of most excellent quality, and the quarry itself is much more conveniently situated with regard to shipping facilities and consequently the stone costs us far less than when procured at Elgin.

All our large supplies were furnished by tender, the various contracts being awarded by the department as follows:—

Lock gate and bridge timber (B.C. fir), to the Hurdman Lumber Company.

1 GEORGE V., A. 1911

Smaller dimension timber and plank to the Hurdman Lumber Company, the W. C. Edwards Company, Limited, the Ottawa Lumber Company, and the Stewarton Lumber Company.

The Portland cement required was awarded to the Lakefield Portland Cement Company.

The paint was awarded to Messrs. Brandram-Henderson, Limited, of Montreal; and the oil to McColl Bros. & Company, of Montreal.

DREDGING PLANT.

The dredge *Rideau* was employed all last summer in making a 50-foot channel through the drowned lands across Sawlog bay, and she has completed about half the distance. This cut when completed will save over one mile in distance from Poona-malie to Oliver's Ferry. The dredge also excavated a small channel in front of the boat houses at the head of the detached lock at Smith's Falls and wintered in one of the locks at Smith's Falls. A new swinging engine was purchased for her from Messrs. Beatty & Company, of Welland; and a new coal scow was built for her this winter at Ottawa. The tug *Loretta* was employed last season towing scows and deliver-ing timber, stone, paint, oil, &c., along the canal; and also on inspection work.

She has been supplied with a Nash Century steam steering engine, which is not yet fitted up, although it is on board.

The following is a statement of the highest and lowest water on the lower mitre sills of the lower locks at Ottawa and Kingston Mills lock stations respectively, from April 1, 1909, to March 31, 1910:—

| OTTAWA, LOCK NO. 1. | | | | KINGSTON MILLS, LOCK NO. 47 | | | |
|---------------------|-------|------------------|------|-----------------------------|------|-------------------|------|
| Highest. | | Lowest. | | Highest. | | Lowest. | |
| Ft. | In. | Ft. | In. | Ft. | In. | Ft. | In. |
| Apr. 30..... | 18 7 | Apr. 1 | 9 6 | Apr. 28-30..... | 8 9 | Apr. 1. | 8 2 |
| May 28-29..... | 26 10 | May 1..... | 18 7 | May 31..... | 9 0 | May 11-18. | 8 8 |
| June 1..... | 26 2 | June 30..... | 15 5 | June 1-5..... | 9 0 | June 29-30..... | 8 9 |
| July 1 | 15 2 | July 23..... | 11 7 | July 1-2..... | 8 9 | July 26-29..... | 8 6 |
| Aug. 1..... | 14 9 | Aug. 30 31..... | 10 0 | Aug. 1-5 | 8 7 | Aug. 22-31..... | 8 4 |
| Sept. 21-23..... | 10 2 | Sept. 3-6..... | 9 9 | Sept. 1..... | 8 4 | Sept. 23-30. | 7 8 |
| Oct. 7-8..... | 10 0 | Oct. 18 | 9 0 | Oct. 11-12..... | 7 9 | Oct. 23-31..... | 7 4 |
| Nov. 25-27..... | 9 10 | Nov. 7-8. | 9 1 | Nov. 1-14..... | 7 4 | Nov. 15-30..... | 7 3 |
| Dec. 15..... | 10 10 | Dec. 9-13..... | 9 8 | Dec. 1-3..... | 7 2 | Dec. 24-31..... | 6 11 |
| Jan. 24-26..... | 9 9 | Jan. 20..... | 8 10 | Jan. 1-11..... | 6 11 | Jan. 28-31..... | 6 8 |
| Feb. 1 | 9 5 | Feb. 27-28..... | 8 1 | Feb. 20-28..... | 6 8 | Feb. 7-10..... | 6 6 |
| Mar. 31..... | 12 9 | Mar. 1-3..... | 8 2 | Mar. 30-31..... | 8 0 | Mar 1..... | 6 8 |

I have the honour to be, sir,
Your obedient servant.

A. T. PHILLIPS, *M. Can. Soc. C.E.*,
Superintending Engineer.

W. A. BOWDEN, Esq., C.E.,
Acting Chief Engineer Canals,
Ottawa, Ont.

SESSIONAL PAPER No. 20

TRENT CANAL.

SUPERINTENDENT'S OFFICE,

PETERBOROUGH, May 26, 1910.

SIR,—I have the honour to submit herewith my annual report of the maintenance and operation of the Trent canal for the fiscal year, from April 1, 1909, to March 31, 1910.

The extent of the canal completed is the same as last year, viz., 160 miles.

Navigation opened and closed on the different stretches, as follows:—

Division extending from Lake Simcoe to Fenelon Falls, opened May 1, closed November 1.

Division extending from Fenelon Falls to Lakefield, opened April 21, closed November 20.

Division extending from Lakefield to Peterborough, opened May 10, closed November 15.

Division extending from Peterborough to Healey's Falls, opened April 17, closed November 27.

The following work was carried out during the year:—

HASTINGS.

The highway bridge was replanked.

RICE LAKE.

A new pier was built for the lighthouse at the mouth of the Otonabee river. The wharf at Hall's Landing was repaired.

OTONABEE RIVER.

Considerable dredging was done at Yankee Bonnet. There is now a splendid channel with nine feet of water at this point, which heretofore was the most dangerous place between Peterborough and Rice lake.

LOCK NO. 7, (PETERBOROUGH).

The lock and bridge were repainted. A small house was erected for the bridge-tender.

PETERBOROUGH HYDRAULIC LIFT LOCK.

The lift lock was repainted.

PETERBOROUGH TO LAKEFIELD.

The canal from the Peterborough lift lock to the golf grounds, a distance of one and one-half miles, was rip-rapped on both sides. From Nassau to Lakefield, a distance of about six miles, the east bank of the canal was rip-rapped. About three miles of fencing was built on this section. The lockhouses were repainted and considerable dredging and drilling were done at the entrance to the lock at Lakefield. A new slide and pier were built at No. 5 dam.

1 GEORGE V., A. 1911

LAKEFIELD.

A shelter 20 feet x 30 feet, for the accommodation of the public was built at the Lakefield dock. The lockmaster's house was repaired and repainted.

LAKEFIELD TO YOUNG'S POINT.

The booms separating the steamboat channel from the lumbermen's channel, between these two points, a distance of six miles, were repaired and new chains placed on the booms.

YOUNG'S POINT.

The office was rebuilt and painted. New arms were placed on the lockgates, and the grounds were levelled off.

STONY LAKE.

A number of private wharfs, that became submerged, by reason of the action of the government in raising the water level in Stony lake for navigation purposes, were raised proportionately. The steamboat channels in the lake were buoyed out.

BURLEIGH FALLS.

The bridge over Perry's creek was rebuilt, as well as the approaches thereto.

LOVESICK.

The lockmaster's house was rebuilt. The lockgates from the water up were rebuilt.

BUCKHORN.

The new concrete dam was taken over from the contractors. The government property was repainted.

BOBCAYGEON.

A new house for the lockmaster was built at Bobcaygeon, and certain minor repairs were done to the dam.

CHEMONG LAKE.

The booms were repaired. An addition to the swing bridge pier was built.

SCUGOG RIVER.

The Scugog river from Sturgeon lake to Lindsay has been kept in good condition for navigation purposes. All the lighthouses were painted and put in good order, a number of new buoys were placed in the river, and the sunken logs were removed from the steamboat channel.

LINDSAY.

The rest pier at the south Lindsay street bridge was repaired and the bridge was replanked.

FENELON FALLS.

A great deal of work was carried on at Fenelon Falls during the past year. A new concrete walk was put in at the lock, some sodding was done, and a water works

SESSIONAL PAPER No. 20

system for watering the grass was installed. A concrete walk was laid in front of the lockmaster's house, and the grounds levelled up. The work of deepening the channel from Cameron lake to the lock was continued, and a turning basin was completed east of the railway bridge. This is 200 feet long by 175 feet wide. From the Grand Trunk railway bridge to Cameron lake, a distance of about 800 feet, there is a splendid channel. This is fifty feet wide at the railway bridge and about two hundred feet at the entrance to the lake, and has a depth of nine feet. The average depth of the material dredged was about five feet. The material was used to make a breakwater on the north side, from the railway bridge to the lake, and on the south side, from a point about 350 feet below, to the railway bridge and the end of the west entrance.

A storehouse and coal shed were built at Fenelon Falls.

The abutment pier at the south end of the dam from the water's edge was re-built. A new platform was built over the power canal or headgates to the Lindsay Light, Heat and Power Company's plant. A new set of stop logs was supplied here, and a new set of winches was placed in position.

BELOW FENELON FALLS.

In the river below Fenelon Falls, a pier 16 feet x 24 feet was re-built from the water's edge, four courses of timber, and filled with stone. This pier is also used for booming logs.

ROSEDALE.

Some minor repairs were done to the old lock. The bridge was re-planked.

COBOCONK.

The landing pier was repaired and filled in to the shore with stone.

BEAVERTON.

A lighthouse was erected at the entrance of the Beaverton harbour, and the channel to the entrance of the harbour was buoyed out.

LAKE SIMCOE.

The entrance to the canal was buoyed out and some minor repairs were done to the lighthouse.

LAKE SIMCOE TO LOCK NO. 4.

All flood wood and other debris was removed from the channel, some fencing was done on the north side near the Grand Trunk railway track, the high level bridge across the canal on the Grand Trunk railway was painted, the west gate at Lock 4 was repaired, and the roadway at Lock 5 was repaired. A new well was sunk at Lock 5 and a small piece of land sixteen and a half feet in width across Lot 10, immediately south of the Trent canal property was acquired by the department, in order to have sufficient land to construct a drain.

FROM LOCK 4 TO BOUNDARY ROAD BRIDGE.

The coping and rip-rapping on the south side of the canal near Lock 3 was repaired. The lockmaster's house at Lock 3 was painted. Four hundred and fifty feet of tile drain was dug up and made deeper, and the tile replaced, and one hundred feet of open drain made for an outlet westward near Dam 3. The iron bridge across the canal on the Portage Road near 'Keans' was replanked, and a wash-out at the end of the bridge on Trespass road was repaired. The channel immediately west of Lock 2 was

1 GEORGE V., A. 1911

deepened by excavating the bottom of the canal for a distance of sixty feet. About three hundred and sixty-five feet of rip-rapping was done on the north side of the canal near Dam 3, about four hundred and eighty feet near Dam 2, sixty feet at a point near Dam 3 and one hundred and thirty feet on the south side of the canal opposite the 'Kean' property. 1,670 feet of rip-rapping was done on the south side of the canal, and 500 feet on the north side of the canal, from Lock 2 to Lock 1. The gates at Lock 2 were repaired and a well sunk at this point.

BOUNDARY ROAD BRIDGE TO KIRKFIELD HYDRAULIC LIFT LOCK.

A great quantity of flood wood was taken out of the canal at this point. This flood wood comes down from the flooded reaches of the canal, and if not removed, would be a serious impediment to navigation. A washout near 'Bishop's' property at Belsover was repaired, and a quantity of stone place in same. A small wash-out, caused by the high water last spring, on the road north of the high level bridge on the Fourth Concession was repaired, and 400 feet of rip-rapping was done along this stretch.

KIRKFIELD HYDRAULIC LIFT LOCK.

Extensive improvements have been carried out at the Kirkfield hydraulic lift lock during the past year. New fences have been erected, a great deal of painting has been done, and a general plan of beautifying the grounds around the lift lock and lockmasters' houses have been adopted.

KIRKFIELD HYDRAULIC LIFT LOCK TO BALSAM LAKE.

One hundred and ninety-two rods of wire fencing was erected from the town line to the Grand Trunk railway, west of the canal, and three hundred and two rods of wire fencing was placed from the Grand Trunk tracks to the Portage road on Lot 49 west of the canal.

RESERVOIR WATERS.

There is in connection with the Trent canal, what is known as 'reservoir waters,' which consist of numerous rivers and streams, not on the route of, but tributary to the canal. Dams have been built at the outlet of many of the lakes on these streams, and the water is conserved until such times in the dry summer and fall season, as it may be required for navigation and power purposes. Considerable work was done on these waters during the past year, as the following will show:—

GULL RIVER.

Norland.—The dam at this point was repaired.

Elliott's Falls.—A new maple floor was placed in the slide at this dam, new stop-log posts were provided and the dam put into first-class condition.

Moore's Falls.—New rollers were put in, and the dam generally repaired.

Horseshoe Dam.—A new concrete dam was built here. This dam will regulate the flow of the water in the Gull river. The present dam replaces an old wooden structure that had rotted away. The new dam is 16 feet high from the sill, and holds about 10 feet of water on Horseshoe lake, and backs the water up into Mountain lake. The dam has four 20 foot weirs, or sluices, and the piers are six feet wide. The abutment on the east side is 25 feet long at base. On the west side the abutment runs up stream for about 40 feet, so as to form a rest for a boom when running logs to the dam.

SESSIONAL PAPER No. 20

Hall's Lake.—The dam between Hall's lake and Bushkong lake was repaired.

Hawk Lake.—The old dam at Hawk lake was repaired by placing in new stop-log posts and a new set of stop-logs. A new platform was also placed on the dam. This is a depot dam, there being a camp here for the caretaker of the Gull river works. This camp was repaired this year.

Redstone Lake.—The pile dam was repaired, but this dam will have to be rebuilt shortly.

Keneese Lake.—The dam was repaired and a stopping place was built to replace the one destroyed by fire in September, 1908.

Eagle Lake.—The dam was repaired, and installed new apparatus for handling stoplogs.

Oblong lake.—This dam was repaired and new rollers for handling stop-logs were installed.

Big Bob Dam, (Tp. of Anson).—This dam was repaired and new rollers installed.

MISSISSAGUA RIVER.

Scott's Dam.—The slide was repaired, some work was done on the platform, and new rollers were installed.

Gull Lake.—A new floor was put on the dam, and some new stop-logs provided. A set of winches was installed.

Bottle Lake Dam.—Some new stop-logs were provided, and the dam was repaired.

SQUAW RIVER.

Dams Nos. 1 and 2 south of the Bobcaygeon road were repaired. Maple floors were placed in the timber slides, new stop-logs were put in and new platform placed on the dam.

BURNT RIVER.

Cushog Lake, (Tp. of Snowden).—A new concrete dam was built here. The dam holds five feet of water on Cushog, Sawers, and Head lake, a distance of 12 miles.

GENERAL.

The plant was kept in first-class condition. The hull of the old dredge *Trent* was converted into a cookery house and blacksmith shop. Scows Nos. 2, 3 and 5 were repaired, and the tug *J. B. McColl* was rebuilt. The tug was formerly known as the *Empire*.

During the year we lost by death George Silverthorne, bridge-tender, Bolsover, and David Galloway, caretaker of the dam at Norland, on the Gull river.

No serious accidents occurred throughout the year and the traffic was the largest in the history of the canal.

The water was kept at a steady and uniform height throughout the entire year, and there were no complaints from navigation interests, the lumbermen or power companies.

I am, sir,

Your obedient servant,

J. H. McCLELLAN,

Superintendent.

W. A. BOWDEN, Esq., C.E.,

Chief Engineer, Department of Railways and Canals,
Ottawa, Ont.

1 GEORGE V., A. 1911

TRENT CANAL.

SUPERINTENDING ENGINEER'S OFFICE.

PETERBOROUGH, May 23, 1910.

W. A. BOWDEN, Esq.,
Chief Engineer,
Department Railways and Canals,
Ottawa, Ont.

DEAR SIR,—I have the honour to submit my annual report for the fiscal year ended March 31, 1910, covering the work of construction chargeable to 'Capital,' Trent canal.

ONTARIO-RICE LAKE DIVISION.

This division embraces the fifty-six and a half miles of all river route between Trenton on Lake Ontario and Rice lake, which will comprise when completed nine and a half miles of canal, thirteen miles of submarine channel and thirty-four miles of deep river whose average width will be about 500 feet. The rise between extreme low water level of Lake Ontario and normal navigation level of Rice lake is 369 feet, which rise will be overcome by 18 locks ranging from 9 to 27 feet in height. Fourteen concrete dams, with stop-log sluices, will be required for the regulation of the river, and at them 75,000 h.p. gross may reasonably be developed at the low water stage of the river, but this quantity may be increased somewhat by a larger expenditure in tail race excavation. The normal navigation level of the natural reaches of the river and Rice lake will be that of ordinary summer level, so that practically no damage will be done by flooding the land along the river and lake shores. In the rapids the dams will hold the river at as high a level as practical, which, in the majority of cases, will be lower than the top of the river banks. The canals and channels with sides showing above water will have a minimum bottom width of 80 feet except in two cases of short canals above locks where the bottom width will be only 50 feet, and the submerged channels will have a minimum bottom width of 100 feet, which will be marked at frequent intervals by small piers. The canals and submarine channels will have a depth of 9 feet.

There will be sixteen bridges, ten of which will be for highways and six for railways. They will be all swing or bascule spans, except that for the main line of the Grand Trunk railway at Trenton Junction, which will be a high level fixed bridge, under which there will be a clear head room of 27 feet at a stage of high water in Lake Ontario.

The locks will be of concrete and will have 8 feet 4 inches of water on the sills, with chambers 33 feet wide by 175 feet long between hollow quoins. They will accommodate barges of 1,000 tons, whose size will be about 150 feet long by 30 feet beam, and drawing 8 feet of water. Entrance piers of not less than 150 feet in length will be provided above and below each lock. The locks will be filled through culverts 4 feet wide by 5 feet high in the side walls, which will be equipped with 'wagon' valves for controlling the water. The lock gates will be of the solid timber type and the upper gates in all cases will be set on the top of lift walls. They will be operated by struts or bars working in hand power winches set in recesses, which will be formed in the lock walls.

SESSIONAL PAPER No. 20

The total cost of the improvement of this part of the 'Trent Navigation' will amount to about \$6,750,000, the first vote for which was made by parliament during the session of 1907. The project involves the removal of about one and a half million cubic yards of earth, one and a quarter million cubic yards of loose and solid rock, and the building of about four hundred thousand cubic yards of concrete.

For construction purposes the division has been divided into seven sections, five of which are under contract, and tenders for the other two have been received. Of the total estimated cost of the division, about 75 per cent of the amount will be covered by the main contracts for the seven sections on which were expended for work done and materials delivered up to March 31, 1910, \$1,285,092.40. Locks Nos. 2, 3, 6, 7 and 14 and dams Nos. 2, 3, 6, 7 11 and 12 are built.

The following tables give the location of the locks and dams with their respective lifts and hydraulic power:—

LOCKS.

| No. of Section. | No. of Lock. | Miles from Trenton | Locality of Lock. | Lift of Lock. | WATER LEVELS. | | Remarks. |
|-----------------|--------------|--------------------|-------------------|---------------|---------------|--------------|---|
| | | | | | Lower Reach. | Upper Reach. | |
| 1 | 1 | 1.8 | Trenton Junct'n. | 20 ft. | 241.0 | 261.0 | Elev. 241.0 is approx. extreme low water level of Lake Ontario, fall of 1895. |
| 1 | 2 | 2.4 | ..... | 20 " | 261.0 | 281.0 | |
| 1 | 3 | 3.9 | Glen Miller..... | 27 " | 281.0 | 308.0 | |
| 2 | 4 | 5.2 | ..... | 18 " | 308.0 | 326.0 | |
| 2 | 5 | 6.4 | ..... | 18 " | 326.0 | 344.0 | |
| 2 | 6 | 7.3 | Frankford ... | 16 " | 344.0 | 369.0 | |
| 3 | 7 | 13.9 | Glen Ross | 9 " | 360.0 | 369.0 | |
| 4 | 8 | 25.2 | Percy Landing.. | 20 " | 369.0 | 389.0 | |
| 4 | 9 | 26.4 | ..... | 16 " | 389.0 | 405.0 | |
| 4 | 10 | 27.9 | ..... | 24 " | 405.0 | 429.0 | |
| 4 | 11 | 29.6 | Ranney Falls... | 24 " | 429.0 | 453.0 | Nos. 11 and 12 are in flight. |
| 4 | 12 | 29.6 | " " | 24 " | 453.0 | 477.0 | |
| 5 | 13 | 32.1 | Campbellford. . | 23 " | 477.0 | 500.0 | |
| 5 | 14 | 33.6 | Middle Falls.... | 25 " | 500.0 | 525.0 | |
| 6 | 15 | 36.1 | Crow Bay ... | 22 " | 525.0 | 547.0 | |
| 6 | 16 | 36.5 | Heeley Falls.... | 27 " | 547.0 | 574.0 | Nos. 16 and 17 are in flight. |
| 6 | 17 | 36.5 | ..... | 27 " | 574.0 | 601.0 | |
| 7 | 18 | 51.0 | Hastings. | 9 " | 601.0 | 610.0 | Elev. 610.0 is normal level of Rice Lake. |

Total rise, 369 feet.

DAMS.

| No. of section. | No. of dam. | Miles from Trenton bridge. | Locality of dam. | WATER LEVELS. | | WATER POWER. | | | Remarks. |
|-----------------|-------------|----------------------------|--------------------------------|---------------|--------|-------------------------|---------------------------------------|--------------------|--|
| | | | | Upper. | Lower. | Available head in feet. | Low water flow cubic feet per second. | Gross horse-power. | |
| 1 | 1 | 1.7 | Trenton Junct'n. | 261.0 | 243.5 | 17.5 | 2,000 | 3,977 | At extreme low water level, elevation 241.0 ; of Lake Ontario a head of 20.0 feet can be obtained. |
| 1 | 2 | 2.4 | ..... | 281.0 | 261.0 | 20.0 | 2,000 | 4,545 | A head of 27 feet can only be developed here with the consent and in conjunction with the Miller Bros., Ltd., who are now using a head of 9 feet here. In the event of their not consenting a head of only 15 feet can be obtained at dam No. 3. |
| 1 | 3 | 4.6 | Glen Miller. | 308.0 | 281.0 | 27.0 | 2,000 | 6,137 | |
| 2 | 4 | 5.2 | ..... | 326.0 | 308.0 | 18.0 | 2,000 | 4,090 | The water-power at this point is owned by the Trent River Paper Co., who have developed part of it. During high water in the spring the head of 16 feet will be reduced some. |
| 2 | 5 | 6.6 | ..... | 344.0 | 326.0 | 18.0 | 2,000 | 4,090 | |
| 2 | 6 | 8.1 | Frankford ... | 360.0 | 344.0 | 16.0 | 2,000 | 3,636 | |
| 3 | 7 | 14.2 | Glen Ross... | 369.0 | 364.0 | 5.0 | 2,000 | 1,136 | By a large expenditure of money a head of 9 feet could be obtained here. During high water the head of 5 feet at the dam may be reduced some. |
| 4 | 8 | 26.4 | Foot of Myers Island. | 405.0 | 375.0 | 30.0 | 2,000 | 6,817 | Thirty feet head requires about 25,000 cu. yds. of rock excavation for tailrace. Twenty-five feet head available with no tailrace excavation. Thirty-six feet head can be obtained at great cost for tailrace excavation in rock. |
| 4 | 9 | 28.7 | Head of Myers Island. | 429.0 | 405.0 | 24 | 2,000 | 5,454 | Considerable tailrace excavation required to get 24 feet head. About 21 feet head available with no tailrace excavation. |
| 4 | 10 | 30.6 | Ranney Falls... | 477.0 | 429.0 | 48 | 2,000 | 10,908 | The power on the river at this point is owned and controlled by various parties whose united consent would have to be obtained in order to develop the 48 feet head in the vicinity of lock No. 12. Otherwise only 15.5 feet head can be obtained at dam No. 10. The balance, 32.5 feet, would have to be developed by a second dam built by private enterprise. |
| 5 | 11 | 32.5 | Stephens Rapids, Campbellford. | 500.0 | 477.0 | 23 | 2,000 | 5,227 | Developed by the Seymour Power and Electric Co. |
| 5 | 12 | 33.6 | Middle Falls.... | 525.0 | 500.0 | 25 | 2,000 | 5,681 | Developed by the Municipality of Campbellford. |
| 6 | 13 | 36.8 | Heeley Falls.... | 601.0 | 535.0 | 66 | 1,500 | 11,250 | A head of 76 feet could be obtained at considerable expense for tailrace excavation. |
| 7 | 14 | 51.0 | Hastings ... | 610.0 | 601.0 | 9 | 1,500 | 1,534 | In high water the nine feet head will be reduced by backwater. |

Total horse-power, 74,482.

SESSIONAL PAPER No. 20

Section No. 1.—This section extends from Trenton to Glen Miller, a distance of about $4\frac{1}{2}$ miles, on which length of river there are three locks and dams.

A contract for the work was entered into with Messrs. Larkin & Sangster on March 10, 1908, and the total value of work done and materials delivered up to March 31, 1910, amounted to \$567,325.39 or about 60 per cent of the value of the contract. The principal items of work done are: 205,527 cubic yards earth, 156,270 cubic yards solid rock, and 42,425 cubic yards concrete. Locks and dams Nos. 2 and 3 are finished. The short canals leading into and out of these locks are partly excavated and their entrance piers are in course of construction. The pit for Lock No. 1 is being taken out, and the excavation for the canal below the lock is nearly finished.

One of the fixed spans at the east end of the Glen Miller highway bridge has been taken out, and a swing bridge built in place of it, which was opened for traffic at the end of February, 1909.

The Contractors have constantly maintained a good force and equipment on the works, which have been carried on by them in an energetic and workmanlike manner, and the close of this season will probably see the works of Section No. 1 completely finished at and north of the Grand Trunk Railway, Trenton Junction.

Grand Trunk Railway Bridge, Trenton Junction.—An agreement was entered into on June 9, 1909, with the Grand Trunk railway system for the construction of a bridge to carry the tracks of their main line over the canal at Trenton Junction.

Lock No. 1 is located immediately north of the railway embankment, and its lower walls are extended to the south side of the railway, which design permits of a high level fixed bridge being used for carrying the railway over the canal. The bridge is designed for three tracks, and also provides for raising them in the future at least seven feet. For the present the clear head room under the bridge at a stage of high water in Lake Ontario will be 27 feet, but when it is raised, the clearance may be 34 feet.

Owing to lack of funds, no work was done on the bridge during the fiscal year 1909-10, but construction was begun by the railway company last month, as the bridge must be built and finished before Messrs. Larkin and Sangster can complete the lower entrance piers and channel of lock No. 1.

Section No. 2.—This section extends from Glen Miller to Frankford, a distance of about $4\frac{1}{2}$ miles, on which stretch of river there are three locks and dams.

A contract for the work was entered into with Messrs. Dennon and Rogers on May 30, 1908, and the total value of work done and materials delivered up to March 31, 1910, amounted to \$159,952.39, or about 26 per cent of the value of the contract. The principal items of work done are: 38,709 cubic yards earth, 29,387 cubic yards solid rock, and 18,363 cubic yards concrete. Dam No. 6 is finished except the bridge across it and lock No. 6 is also finished except its lower entrance piers. Some excavation and part of the core walls for the short canal connecting lock and dam No. 6 have been done. The pivot piers and abutments of the swing bridge across the canal on Bridge street, Frankford, have been built, and the Hamilton Bridge Co., are now erecting the superstructure. A little excavation has been done at the sites of Locks Nos. 4 and 5, but no work has been done at dams Nos. 4 and 5.

The work on this section is proceeding very slowly and if the structures on it are to be finished concurrently with those on the other sections of the division, the contractors will have to provide more plant and maintain constantly a much larger force of men and teams than they have at present.

Section No. 3.—This section extends from Frankford to a point three miles west of Glen Ross, a distance of $7\frac{1}{2}$ miles. At Glen Ross there are a lock and dam, and two bridges.

A contract for the work was entered into with the Canadian General Development Co., Ltd., on April 24, 1908, and the total value of work done and materials

1 GEORGE V., A. 1911

delivered up to March 31, 1910, amounted to \$181,042.32, or about 63 per cent of the value of the contract. The principal items of work done are:—10,948 cubic yards earth, 74,669 cubic yards solid rock, and 10,226 cubic yards concrete. Lock and Dam No. 7 at Glen Ross, and the short canal above and below the lock are finished. The bridges across the canal above the lock for the Frankford highway and the Central Ontario railway are also finished and in use. The Central Ontario railway bridge was placed in commission on April 29, 1909.

The whole of the work on this section is finished except the dredging in the river, which has not been touched, as the contractors have no dredging fleet on the ground, and may wait until they can bring one in from Lake Ontario.

Section No. 4.—This section extends from Adams landing, a point three miles west of Glen Ross to Campbellford, a distance of about 14 miles. There are between Bradley bay and Campbellford five locks, three dams and four bridges; and $1\frac{1}{4}$ miles of concrete retaining wall for enclosing the river through the town of Campbellford, together with a large quantity of earth and rock excavation. During the past two years the route of the canal through Campbellford was very carefully studied and the plans and specifications for letting the work were finally completed last winter and the work advertised, tenders for which were received on the 5th instant.

Section No. 5.—This section extends from Campbellford to Crow bay, a distance of 3 miles. On the section are two locks and dams.

A contract for the work was entered into with Messrs. Brown & Aylmer on September 28, 1907, and the total value of work done and materials delivered up to March 31, 1910, amounted to \$342,722.90, or about 62 per cent of the value of the contract. The principal items of work done are, 65,380 cubic yards earth, 39,248 cubic yards solid rock, and 31,552 cubic yards concrete. Dam No. 11 (Stephen's rapids), dam No. 12 and lock No. 14 at Middle Falls are entirely finished. The only structure on this section yet to build is lock No. 13 at Stephen's rapids, which will be built this season. The channel leading from Crow Bay to lock No. 14 will be finished early this summer, when the contractors intend moving their Lobnitz rock breaker and dredge down on to the reach between locks 13 and 14. The dredging fleet was built on Crow bay during the winter of 1907-8, and has since been employed on the bay.

At Middle Falls the municipality of Campbellford have built a hydro-electric plant between the river shore and lock 14, which they are operating under the terms of lease No. 18115. A development of 5,700 h.p. gross under a head of 25 feet may be obtained at this point during the low water stage of the river. The works comprise a forebay about 600 feet long, 11 feet deep and 50 feet wide cut out of solid rock; and a small power house built of rock faced ashlar, with a concrete pressure chamber in front of it divided into three separate compartments. No work was required to be done for a tail race. There are installed at present one 1,470 h.p. double runner turbine direct connected on a horizontal shaft to a 750 k.w. alternating current generator. Also one 80 h.p. turbine connected to a 55 k.w. direct current exciter. There are also switch boards, line instruments, lightning arresters, a hand power travelling crane, and a type N Lombard governor which maintains the speed within $\frac{1}{2}$ per cent normal. The three phase, 60 cycle current is generated and transmitted at 2,400 volts. The station is connected with the town by 2½ miles of cedar pole transmission line, the conductors being plain bare copper wire No. 000. Within the corporation limits there are 15 miles of distribution line. Their lighting load at present is about 260 k.w. and they have to date sold to different parties in the town 140 h.p. The corporation have recently entered into an agreement with the Seymour Power Company by which it agrees to supply the company with 1,000 k.w. for a period of five years, and in pursuance of the above are proceeding to install a 1,950 h.p. turbine and a 1,000 k.w. generator. The hydraulic machinery was supplied by S. Morgan Smith, and the electric apparatus by the Allis-Chalmers-Bullock, Ltd., except the 1,000 k.w. generator

SESSIONAL PAPER No. 20

which will be supplied by the Swedish General Electric Co. The corporation has at present a surplus power which it hopes will soon be taken up, when this is done, they intend to proceed with the full development of the minimum flow of the river at their power station. The plant was placed in commission on September 18, 1909.

At dam No. 11 (Stephen's rapids) the Seymour Power and Electric Company have built a hydro-electric plant on the east side of the river, about 1,000 feet below the dam. This plant is operated under the terms of lease No. 17829 granted to Mr. J. G. G. Kerry, and will develop under a 23 feet head at the low water stage of the river about 5,300 h.p. gross. The works consist of a forebay about 150 feet wide by 1,060 feet long contained between concrete walls, a concrete power house and a short tail-race. The superstructure of the building, which will be fully finished this summer, is of ashlar faced block. The equipment will consist of five double runner vertical shaft turbines of 870 h.p. each, installed in separate wheel pits built of reinforced concrete. Their operation is controlled by governors of the Monerett type, which are designed to automatically, and completely close the turbine gates in four seconds of time in case any accident occurs to the machinery. The alternating current generators are of the vertical shaft umbrella type with a rated capacity of 750 k.v.a. The house is equipped with both turbine driven and motor driven exciter set for maintaining the fields of the generators. It is also provided with an electric overhead crane furnished by the Advance Machine Works, Walkerville, Ont. There is a full switch board of modern type, oil switches, choke coils, lightning arresters, &c. The three phase 60 cycle current is generated at 2,400 volts and is stepped up to a transmission voltage of 44,000 volts. The hydraulic machinery was supplied by Messrs. Wm. Kennedy & Sons, Owen Sound, Ont., and the electric equipment by the Canadian Electric Company, Peterborough, Ont. The company have built an extensive system of cedar pole transmission line; the conductors used are aluminum cable of 7 strand No. 2, B.W.G., which is now so far advanced that power can be delivered to Marmora, Deloro, Madoc, Tweed, Sulphide, Stirling, Belleville and adjoining places. The completion of the plant was far enough advanced last fall for the company to begin the delivery of power, which they began delivering to Deloro mines on December 5, 1909. Since that date the plant has been in constant operation.

Section No. 6.—This section extends from the lower end of Crow bay to 1,000 feet west of Heeley Falls bridge, a distance of about three miles. There are three locks, one dam and one bridge on the section, together with a large quantity of earth and rock excavation. The short canal at this point is located on the west side of the river and is designed to overcome the 76 feet rise between Crow bay and the 14 miles of river reach between Heeley Falls and Hastings. The plans and specification for this section were finished last year and the work advertised this spring, tenders for which were received on April 26, 1910, and the contract for the construction of the section has been awarded to Messrs. Haney, Quinlan and Robertson.

Section No. 7.—This section extends from Heeley Falls to Rice lake, a distance of about 19½ miles. The principal works consist of a large quantity of earth and rock dredging in the river, a new lock and dam at Hastings, a new swing bridge at Trent bridge and new guide piers at the Grand Trunk railway bridge, Hastings.

A contract for the work was entered into with the Randolph Macdonald Company, Ltd., on January 4, 1909, but owing to the lack of funds only \$34,049.40 worth of work, chiefly dredging, and materials delivered were done by March 31, 1910. The company last year built a dredge, tug, scows and a drill boat. Last fall they built a coffer-dam around the pit for the new lock, and are now preparing to unwater it and proceed with the excavation of the foundation and construction of the lock, which will be finished this season. The new lock is located far enough below the highway swing bridge so as to permit the use of extension walls for the bridge to swing over instead of over the chamber as was the case with the old

1 GEORGE V., A. 1911

lock, which was put out of commission on April 15, 1910, when its gates were unstepped and the dam surrounding the pit for the new one was closed.

BURLEIGH FALLS DAM.

During the fall of 1908 a survey of Lovesick lake was made with the object of ascertaining whether the level of the lake, which is about four feet lower than Deer bay, could not be raised up to the level of the latter and thereby drown out the lock and dams at Lovesick. The survey clearly demonstrated that this could be very readily and economically done, and the plans for the new concrete dam at Burleigh Falls to replace the present dilapidated wooden structure, originally built in 1888, were prepared accordingly. This scheme involves at a future date the construction of a single lock at Burleigh Falls of about 27 feet lift to replace the present flight lock at this point and the four feet lift at Lovesick.

A contract for the new dam, which will be located about 50 feet below the present one, was entered into with Messrs. Bishop & Buchannan on December 14, 1909. The work done and materials delivered up to March 31, 1910, amounted to \$2,194.76. The contractors have delivered some gravel, timber, &c., and will proceed with the execution of the work this season.

LINDSAY SECTION.

During the summer of 1908 a survey of the Scugog river at Lindsay was made, preliminary to the preparation of plans and specifications for a new lock, and dam at Lindsay, and a new bridge at Wellington street. A contract for the work was entered into with Messrs. John Ritchie & Co., on January 20, 1909.

The total value of work done and materials delivered up to March 31, 1910, was \$31,700.13. The work embraced in this contract will be completed early this summer. The lock is finished, and the gates built at Rosedale by this office last year will be stepped this month and the lock put in commission. The dam was finished last fall and its sluices materially assisted in maintaining a more uniform level of the river this spring than ever obtained before, and in the future no further trouble should be experienced by excessive and long continued high water on the river above Lindsay as has obtained every spring in past years.

The present lock and dam are built on the site of the original structures whose construction was begun by the province of Upper Canada in 1837 and finished in the fall of 1843. The 1843 lock would appear to have remained in commission up to 1859, when it was converted into a timber slide and remained as such until 1870, when it was rebuilt by the province of Ontario, which entered into a contract with Thomas Walters on February 3, 1870, for rebuilding it in timber, when it was again placed in commission in the spring of 1871. The walls were rebuilt on the old foundations without disturbing the mitre sills, and were again renewed in 1885.

When the lock was finished in 1843, or sometime afterwards a highway bridge was built across it, which remained in existence until after 1860 when it was replaced by a bridge on the line of Lindsay street below the lock.

The original dam was built about 246 feet long, but for some years past was only 167 feet long. In 1882 a canoe slide and platform was built over the end of it next the lock, which accounts in part for the shorter length of the dam in recent years. The difference in height between the sills of the lock and the crest of the dam as finished in 1843 would appear to have been 12 feet, which agrees exactly with the actual difference in height between the sills of the old lock and the highest point of the crest of the old dam as determined by us before they were removed last year. Considering the top of the stop-logs of the sluices of the new dam as part of the crest, the total length of crest of the new structure is 167 feet, or the same length as the old one, and its elevation is 46.6, or the same level as the highest point of the old crest. The new dam has

SESSIONAL PAPER No. 20

two stop-log sluices each 15 feet long by five feet deep for the purpose of providing free discharge for spring or other floods.

| | Distance from centre line of Lindsay St., bridge to upper H. Quoins. | Length of lock be- tween H. Quoins. | Coping of lock. | Upper mitre sill. | Lower mitre sill. | Upper stop-log sill. |
|---------------|---|--|-----------------|---|-------------------|----------------------|
| | Feet. | Feet. | | Elevations. Constuction datum of new lock. | | |
| Old lock..... | 191.4 | 133 | 49.6 | 34.6 | 34.5 | 39.5 |
| New lock..... | 202.9 | 142 | 49.6 | 36.77 | 33.0 | 38.27 |

The centre line of the old and new locks is the same. Normal water level above the lock is elevation 46.6, and below it elevation 40.0.

On April 6, 1910, a contract was entered into with the Hamilton Bridge Works Company, Ltd., for the superstructure of the new Wellington street bridge, which is to be a Strauss Trunnion Bascule bridge, embracing a 73-foot deck plate girder movable span, which will be operated by electricity. The electrical equipment will be provided by the Canadian General Electric Company, the whole of which is to be finished and ready for operation by September 1, 1910.

ROSEDALE SECTION.

The works of this section consist of a canal across the narrow peninsula between Cameron and Balsam lakes, a lock, dam and dredging in the Gull river between its confluence with the canal and deep water in Balsam lake. The lock is the same size as those of the Ontario-Rice lake division, and the canal and river channel will be 100 feet wide on the bottom with a depth of 9 feet at normal lake levels. The distance via the new canal between the 9 feet contours in Cameron and Balsam lakes is 1.8 miles, or 1.2 miles shorter than via the Gull river and the old lock.

A contract for the construction of this section was entered into with the Randolph Macdonald, Company, Ltd., on February 24, 1908, and the total value of work done and materials delivered up to March 31, 1910, amounted to \$134,919.74. The principal items of work done are: 195,000 cubic yards earth, 4,600 cubic yards solid rock, and 7,740 cubic yards concrete. The lock and its entrance piers are finished, and also the excavation for the canal, and some dredging has been done in the Cameron lake channel and in the Gull river. The gates for the lock were built on the ground by this office last year and stepped early this month, and upon removal of the cofferdam at the head of the canal this week, the new lock will be placed in commission and the old one closed to navigation. The dam which is located 1,500 feet higher up the river than the old one will be built this summer, and it is expected that the whole of the works will be completed this season except the dredging.

The improvements now in progress will replace the old wooden lock and dam built by Mr. Wm. Whiteside who in 1869 entered into a contract with the provincial government for their construction. The lock was not finally completed and placed in commission until late in 1873. His contract also included the building of a swing bridge across the river at this point, which was replaced by the Dominion government in 1897 by a steel swing span erected on a concrete substructure. In 1897 the Dominion government also completed the excavation of a channel 90 feet wide by 7 feet

1 GEORGE V., A. 1911

deep in the river between the old lock and Balsam lake, which channel up to then was only about $3\frac{1}{2}$ feet deep.

HOLLAND RIVER DIVISION.

This division is divided into two sections. Section No. 1 extends from Cook's bay, Lake Simcoe, to Holland landing, on the east branch of the Holland river, a distance of $8\frac{1}{2}$ miles. Section No. 2 extends from Holland landing to Newmarket, a distance of $4\frac{1}{2}$ miles. The whole of section No. 1 is on the Lake Simcoe level, and the total rise between Holland Landing and Newmarket is 43 feet, which will be overcome by three locks.

Section No. 1.—A contract for the construction of this section, chiefly dredging, was entered into with the Lake Simcoe Dredging Co., on August 30, 1906.

The company had only dredged 12,392 cubic yards of material at the close of the season 1907 when they abandoned the work, and the department took it out of their hands in May, 1908.

A final estimate in favour of the Lake Simcoe Dredging Co. amounting to \$2,465.20 for the work done was sent into the department in October, 1908.

This section has not been re-let.

Section No. 2.—A contract for the construction of this section which consists of three locks, three dams, four highway bridges, one dock and a large quantity of earth excavation, stone protection, lining, &c., was entered into with Mr. John Riley on February 12, 1908, and assigned by him to Messrs. Russell, Dill and Lothian, on February 19, 1908, and by them to the York Construction Co., Ltd., on April 3, 1908, who are carrying on the work.

The total value of the work done and materials delivered up to March 31, 1910, amounted to \$225,062.32, or about 37 per cent of the value of the contract. The principal items of work done are: 420,000 cubic yards earth, 10,050 cubic yards concrete, 13,150 lineal feet of piles driven, 4,600 cubic yards stone protection in place, and 12,740 cubic yards puddle. There are delivered on the work ready for placing 4,590 cubic yards stone protection, all the steel reinforcing required for dams, timber for stop-logs, hollow quoin casings for Locks 1 and 2, &c. Lock and Dam No. 3 located about one mile below Huron street, Newmarket, are finished, except the lower entrance piers of the lock and the foot bridge across the dam. The Newmarket dock is half built, which will be finished this season, together with lock and Dam No. 3, and the mile of canal between them. About 52 per cent of the excavation on the section has been done, and it is the contractors' intention to devote most of their energies to completing this part of the work this season, for which purpose the steam shovel has been moved down to reach 1-2; and reaches 2-3, and Newmarket will be finished by scraper teams, and the Lake Simcoe reach below Lock No. 1 will be excavated by a cableway erected last year for this purpose. Green Lane bridge situated half a mile below Lock No. 3 is finished and in commission. No work has been done on Locks 1 and 2 and their highway bridges, nor at the high level bridge for the Bradford road.

Queensville Road Bridge.—This bridge crosses the east branch of the Holland river, about two miles north of Bradford road, Holland landing. A contract for the substructure of the bridge was entered into with Messrs. D. Conroy & Sons on December 1, 1906, and was finally completed by them in June 1908. A final estimate for the work amounting to \$18,212 was sent in to the department in January, 1909.

A contract for the superstructure of the bridge was entered into with the Dominion Bridge Co., on October 12, 1906, for \$4,872, which they finally completed on August 21, 1907, and the bridge was placed in commission that fall.

SESSIONAL PAPER No. 20

Water Supply.—Last year the whole of the valley between Newmarket and Aurora was surveyed and cross-sectioned for the purpose of determining the location and size of the reservoir dams required for supplying the canal with water between Newmarket and Holland landing. Plans for this purpose are now being prepared. Last June concrete measuring weirs were built on the river south of Newmarket and also on the Bogartown branch of the river, at which tri-weekly readings and oftener during rainy weather have since been taken for the purpose of accurately and positively determining the run off of the valley. These readings will be continued until the reservoirs have been built and finished.

BRIDGES.

A contract was entered into with the Hamilton Bridge Works Co., Ltd., on October 10, 1908, for the manufacture and erection of six highway swing bridges and one railway swing bridge.

The highway swing bridges at Glen Millar, Glen Ross and Green Lane are finished and in commission. The swing span for the Central Ontario Railway at Glen Ross has also been finished and placed in commission. The highway bridge at Frankford has been erected, but will not be in commission until the approaches to it are finished by the contractors for the substructure. The highway spans for Yonge street, Holland landing and second concession road, section 2, Holland river division are fabricated, and stored in the company's yards at Hamilton ready for shipping.

On April 6, 1910, a contract was entered into with the Hamilton Bridge Works Co., Ltd., for the manufacture and erection of a Strauss Trunnion Bascule highway bridge for Wellington street, Lindsay, according to the plans and specifications prepared by the Strauss Bascule and Concrete Bridge Co., Chicago. This bridge will have a 73 feet movable leaf and is to be ready for operation on September 1 next. It will in all probability be the first bridge of the kind erected and finished in Canada.

WAGON VALVE FOR LOCKS.

A contract for the manufacture and erection of the wagon valves required for the filling culverts of the new locks and regulating sluices of the canal was entered into with the Dominion Bridge Co., Ltd., on October 5, 1908. Since that date the valves for Locks 7 and 14 of the Ontario-Rice Lake division and those for the Rosedale lock have been installed, and the company are at present installing those for Locks 2, 3 and 6 of the Ontario-Rice Lake division. A large part of the metal for the balance of the valves is fabricated and stored in the company's yards at Dominion, Que., ready for shipping.

The 'wagon' valve is a modified type of the 'stoney' valve. It may be described as a counterweighted iron gate mounted on two pairs of large wheels, which travel upon rails bolted to a rigid steel frame embedded in the side walls of the wells formed over the culverts in the concrete walls of the locks. The counterweights move in guides and follow the motion of the valves. The characteristics of the valve are:—that the bearing is always on the rails through the wheels; and that the vertical and upper horizontal water seals of the valve are made by adjustable bronze plates which make a planed surface contact with the faced sides of the steel cast guide rails and upper seating on valve frames respectively. The seals do not make the valve absolutely water tight. The valves are erected on the down stream side of their respective wells, and the valves with their water seals can be adjusted, or taken out for repairs and replaced, without the aid of a diver, or disturbing their operating winches at the top of the wells. The valve openings are 4 feet wide by 5 feet high and the valves are designed to work under heads varying from 4 to 40 feet.

On March 5, 1909, the Dominion Bridge Company made a series of tests to find the tractive effort required for working the valves. A set of rails were placed hori-

1 GEORGE V., A. 1911

zontally and the tests were all made with dry bearings. With the valve alone, weighing 2,300 pounds and no external load, the total tractive effort required to move it was 65 pounds. A load of 40,000 pounds was then placed on the back of the valve and the total tractive effort required to move it was 1,500 pounds, on repeating the test on the unloaded valve at conclusion of tests the total tractive effort required was found to be reduced to 55 pounds. A dynamometer was used for measuring the pull in each case. The tractive effort required to move the valve was less than 4 per cent of the total load throughout the tests.

When the valves were installed at the Middle Falls lock, an opportunity was afforded of testing them under a head of 11 feet. Two men easily and fully opened the valve (5 feet rise) in thirty seconds, and one man in 45 to 75 seconds. The valve opens easily for the first 12 to 15 inches, when a decided increase in load occurs for a few seconds only and which rapidly eases off as the valve rises. In no case did the load tend to re-act on the horizontal levers (4 feet radius) of the winches, and the grip at the levers could be released at any time under any condition of load without the winch running back on the operator, the load being held steadily by the mechanical brake with which the winches are equipped. Whenever the operators let go the levers, the reverse action at the handles was only from 2 to 3 inches in extent at the most, when releasing the grip.

The following tests were made in the Dominion Bridge Co.'s shops at Dominion on one of the above mechanical brakes on February 5, 1909.

A lever of 96 inches effective length was attached to the brake gear wheel, and a similar lever to the brake shaft below the brake discs. Hand power was applied to the lever to raise a load carried on a platform and suspended by a rope over a pulley, thence to the second lever below the brake disc. A load producing a torque of 6,970 inch pounds on the brake shaft was readily raised, and completely controlled by one man. A load producing a torque of 14,440 inch pounds on the brake shaft was readily raised, and completely controlled by two men. A load producing a torque of 25,100 inch pounds on the brake shaft was readily raised, and completely controlled by four men. In all cases one man alone completely controlled the lowering, and the brake automatically held the load on releasing the handles, only a few inches fly back at the end of the hand lever was observed on relasing it at any time during the tests.

A provision for 9,800 pounds as a maximum load on the valve chain was the basis of strength, with a counterweight of 1,800 pounds, leaving a net load of 8,000 pounds to be dealt with by the winch. The brake shaft torque required to deal with this load, that is to say, to sustain it, was estimated at 16,000 inch pounds.

It was now decided to test the limit of usefulness of the brake and a load producing a torque of 46,600 inch pounds on the brake shaft was applied; no attempt was made to raise the load by handpower, but the lowering was readily controlled by one man exercising ordinary care. The brake began to slip with this load, which may be taken as its useful limit. No sign of weakness could be found on examining the brake, during or after the application of this load.

LOCK GATE OPERATING MACHINES.

A contract was entered into with Mr. Herbert B. Collier on May 7, 1909, for the supply and delivery of the operating machines, anchorage fittings and pivots required for the lock gates of the new locks along the canal.

The operating machines, anchorage fittings and pivots for the Rosedale and Lindsay locks have been installed, and those for Lock No. 3, Holland river division, and for Locks 2, 3 6, 7 and 14, Ontario-Rice Lake Division, have been delivered and partly installed.

The contractor has also finished and stored ready for shipping when required, in the Wm. Hamilton Co.'s shops, Peterborough, a large part of the machines, anchorage fittings and pivots required for the other locks embraced in his contract.

SESSIONAL PAPER No. 20

GENERAL.

Cement.—About 81,500 barrels of Portland cement were used on the works during the year. It was supplied and delivered under contract by the Lakefield Portland Cement Company.

Lock gates.—The lock gates for the Rosedale and Lindsay locks were built by this office at Rosedale last year. Mr. Jas. A. Hadcock had immediate charge of the work and carried it out in a first class and workmanlike manner. The gates are of the solid timber type and are built of British Columbia fir, which was supplied by Messrs. Mason, Gordon & Co., Montreal, and the metal work was fabricated and delivered by the William Hamilton Co., Peterborough.

The gates for the Rosedale lock were stepped last week, and those for the Lindsay lock are being delivered and will be stepped this week.

Lake surveys.—No charts of the chain of lakes which form part of the Trent navigation have ever been made, and with the object of making a complete and reliable set of charts of these inland waters, hydrographic surveys of the lakes were begun two years ago, which have since been intermittently carried on. The field work for the surveys of Rice, Lovesick, Sturgeon, Cameron and Balsam lakes and the Otonabee river are practically finished and next winter the surveys of Katchewanoc, Clear, Stoney, Deer, Buckhorn and Pigeon lakes will be proceeded with. Very little office work in connection with the charts has yet been done.

In the fall of 1908 the Geodetic branch of the Public Works Department ran a line of precise levels from a Lake Ontario gauge at Brighton to Orillia, *via* the Grand Trunk railway to Trenton, and thence by the C. O. railway to Anson Junction, and thence *via* the Midland division of the Grand Trunk railway to Orillia where they connected with their Toronto-North Bay line of levels ran some years before in connection with the Georgian Bay canal survey. Since then this office has run branch lines from the above line of levels between Peterborough and Lindsay *via* the lakes and between Lindsay and Rosedale; in order that the hydrographic surveys of the lakes and all work thereon in future could be referred to a common datum, *viz.*, mean sea level, New York.

I am, sir,

Your obedient servant,

ALEX. J. GRANT,

Superintending Engineer.

1 GEORGE V., A. 1911

SAULT STE. MARIE CANAL.

ENGINEER'S OFFICE,

SAULT STE. MARIE, ONT., April 1, 1910.

SIR,—I have the honour to submit my annual report on the improvements in progress to the upper entrance of the Sault Ste. Marie canal for the fiscal year ending March 31, 1910.

DREDGING UPPER ENTRANCE.

The contract entered into with Mr. C. S. Boone for the deepening and widening through the Vidal shoals situated about two miles above the lock, was brought to a satisfactory completion November 12, 1909, which provided for a channelway of 500 feet in width and a depth of 21 feet, 5 inches at low water stage.

A contract was entered into with Mr. J. J. Collins for the widening of the channelway on the north side from the westerly end of the north pier (under construction) and on line with same extending westerly to intersect with a production of the northerly limit of the channel as defined passing through the Vidal shoals. The depth to be secured to be on a plane of 21 feet 5 inches below the lowest recorded water line. Work was started on this contract October 27, 1909, but owing to the lateness in the season very little progress was made.

RANGE BEACON—UPPER ENTRANCE.

During the coming season, it is proposed to remove the Beacon range and a small shoal in the vicinity of same. The Beacon stands within the limits of the improved channel and is much in the way of vessels turning between the upper channel and canal lock reach. The Department of Marine will put in place a permanent range for the upper channel outside the channel limits.

STUDIES FOR A POSSIBLE ADDITIONAL LOCK AT THE SOO.

During the latter part of the year preliminary surveys were started for a proposed new ship canal. Three lines were laid down over which levels have been taken, one to the north of the present canal and two to the south. From the information obtained the line farthest south is looked upon the most favourably. The surveys so far have been of a very preliminary nature and much data must be obtained before the most favourable location for a new canal can be determined. This coming season it is proposed to sound the possible approaches and gather such data as will be necessary to form an approximate estimate of the cost of a lock that will meet the requirements of the estimated increase and development of lake commerce.

A study of the requirements of so important an undertaking must receive the most careful attention of those entrusted with its development, and should not be hampered by time which is so often the case in large public works which are started sometimes before the designs have been worked out.

I desire to draw attention to a few facts that have come before my attention and which lead me to believe that the time is now opportune for a serious consideration of the requirement of a new lock and canal in the near future on the Canadian side of the St. Mary's Falls.

At the present time the United States government have undertaken the construction of a new lock to be known as the 'Davis lock,' and have under consideration

SESSIONAL PAPER No. 20

another lock of like dimensions to the Davis lock which is to be 1,350 feet long by 80 feet wide in the chamber, with a depth of 25 feet at low water stage on the mitre sill. Work has already been started and it is contemplated the new Davis lock will be put in commission in the year 1914.

The immediate need of this new undertaking has been forcibly demonstrated during the past season of navigation. Serious accidents have happened to both the Canadian and Poe locks which might be termed unavoidable, with the result that for days at a time, while repairs were being hurried forward to put the lock in commission, expensive delays were necessitated to lake traffic. On one occasion the number of vessels awaiting lockage and at anchor reached the enormous number of eighty, representing about 450,00 tons of freight delayed in transmission. The delay to some of the boats on this occasion reached three days. Outside the feature of accidents, it is frequently noted that a slight congestion in traffic will mean the loss of as much as six hours and more which should the same conditions occur frequently would amount to the value of an extra trip or more to the vessels so detained.

The channels between the lakes have been deepened to provide a greater draft than the present locks at Sault Ste. Marie will allow, and with the opening of the new Davis lock an increase of two feet in draft will be provided with a further allowance of four feet to make easier the passage of vessels in and out of the lock.

The depth of the channels connecting the lakes has been increased since the opening of the Canadian and Poe locks $4\frac{1}{2}$ feet, and in the lower approach to the Canadian lock the channel was deepened 3 feet in the same period. From the above it may be deducted that there is $1\frac{1}{2}$ feet more water provided than in the Canadian canal approach at the lower entrance. Which means that there are two feet nine inches more than there is on the floor of the lock chamber of the Canadian lock.

This additional depth of $4\frac{1}{2}$ feet provided in the channels connecting the lakes secures a depth of 21 feet when Lake Huron stands at low water stage (elevation, 579.00) which means a draft for loading of twenty feet at extreme low stage which will increase to 22 feet during the season of navigation.

It is not contemplated that a greater depth than 21 feet will be provided in the channels between the lakes, although the new Davis lock when completed will pass through a draft of 24 feet, but to insure that draft in the channels would mean a tremendous amount of work at a very great outlay.

With the depth now available careful watch is kept of the stage of water and advantage is taken of any increase to load the vessels deeper. A recommended draft is issued from the canal offices which is obtained from the mean stage as recorded by the water gauges.

During the past season the recommended draft of the Canadian lock for up bound was in excess of six inches of that of the American lock due to the difference in the controlling elevations of the locks, and for down bound, with the same controlling elevations, an additional draft was obtained by opening the filling valves and raising the water in the lock chamber, which could not be done to the same extent in the Poe lock chamber owing to the additional width of forty feet over the Canadian lock.

The result of this additional draft provided at the Canadian lock is marked by the great increase in tonnage this past season. Vessels were loaded at the ore docks for the lock to be used in transit and as many used the lock of greater draft as it was possible to accommodate at the time of passage.

The opening of part of the improved channelway at the upper entrance made it possible for vessels to use the full draft of the Canadian lock this season.

The deepening of the upper approach to the Canadian canal has provided 21 feet, 5 inches at extreme low water level, and 24 feet 5 inches at the regulated stage to be maintained.

1 GEORGE V., A. 1911

Vessels navigating the lakes have increased to a length of 607 feet and 60 feet beam and can draw over 21 feet of water. With the coming of these large vessels, the time taken up in approaching, locking, and clearing has increased.

A notable increase in the Canadian tonnage has been made in the past five years. The statistics show that the Canadian registered tonnage, relative to the Canadian canal, increased from 1,557,337 tons in 1904, to 2,912,586 tons in 1909.

The reasons for proposing a new canal at Sault Ste. Marie are: First, to keep pace with the rapid increase in Canadian tonnage with the development of the west. Secondly, to provide a lock of a width that will accommodate boats now plying on the lakes and being built of greater beam than the present lock will pass through. Thirdly, to provide additional draft both in the lock and approaches so that vessels may load to pass through the Canadian canal drawing as much water as will be provided by the new canal now under construction by the United States government.

I have the honour to be,

Your obedient servant,

F. B. FRIPP,

Engineer in Charge.

W. A. BOWDEN, Esq.,
Acting Chief Engineer,
Department of Railways and Canals,
Ottawa, Ont.

ST. PETER'S CANAL.

March 31, 1910.

SIR,—I have the honour to submit my annual report of work and operation St. Peter's canal, under my charge during the fiscal year ending March 31, 1910.

The only repairs done to canal the past year was the placing of six new mooring posts, the hanging of 7 fenders, reaving 5 new chains.

The canal lock is still in a bad condition. We had to get the marine diver on two occasions last fall to clear away foul chains and shimmer up track, &c. The operating of gates is very heavy, particularly at low tide; when the tide is high they are more or less buoyant and come easier. You will find report of Mr. Sargent, C.E., inspecting engineer, September, 1908, which will give you an idea of conditions and the necessary repairs and improvements required on lock and canal. However, barring accidents, I think we can manage the operating for at least the coming season. Captains and crews of steamers and vessels are very off-handed in helping to move the gates, and it would not surprise me that at the opening of navigation this spring, I will require one or two more men on the canal staff.

Navigation opened on April 12, 1909, and closed January 11, 1910; during that time, 1,304 steamers and vessels passed up and down canal.

There is one tidal lock and four pairs of gates on St. Peter's canal.

Meantime, I have the honour to be,

Your obedient servant,

JOHN H. DEVEREUX,

Lockmaster.

W. A. BOWDEN, Esq.,
Acting Chief Engineer,
Railways and Canals,
Ottawa.

PART VIII. — MISCELLANEOUS.

Table of distances, Intercolonial and Prince Edward Island Railways.

INTERCOLONIAL RAILWAY.

Expenses, earnings, freight tonnage and passengers yearly since July 1, 1876.

Earnings, yearly since July 1, 1876.

Local and through freight, yearly since July 1, 1876.

Local and through passengers, yearly since July 1, 1876.

Coal carried from Nova Scotia collieries, yearly since July 1, 1876.

Grain carried for shipment, yearly since July 1, 1876.

Flour and meal carried, yearly since July 1, 1876.

Grain carried, yearly since July 1, 1876.

Lumber carried, yearly since July 1, 1876.

Live stock carried, yearly since July 1, 1876.

Ocean-borne goods carried, yearly since July 1, 1876.

Raw and refined sugar carried, yearly since July 1, 1876.

Fresh and salt fish carried, yearly since July 1, 1876.

Ocean-borne passenger business at Halifax for fiscal year 1909-10.

Ocean-borne passenger business at St. John for the fiscal year 1909-10.

Ocean-borne passenger business at Quebec for fiscal year 1909-10.

Ocean-borne freight traffic via Halifax for fiscal year 1909-10.

Ocean-borne freight traffic via St. John for fiscal year 1909-10.

WINDSOR BRANCH.

Earnings, expenses and profits or losses, yearly from 1880.

PRINCE EDWARD ISLAND RAILWAY.

Expenses, earnings, freight and passenger traffic, yearly from 1875.

CANALS.

Statement showing total cost of construction and enlargement from Montreal to Port Arthur.

Statement showing total cost of construction and enlargement from Lachine to Ottawa.

Statement showing total cost of construction and enlargement from Ottawa to Kingston.

Statement showing total cost of construction and enlargement from St. Johns to Sorel.

Statement showing total cost of construction and enlargement from Lake Ontario to Georgian Bay.

Statement showing total cost of construction and enlargement from Atlantic Ocean to Bras d'Or Lakes.

Dates of opening and closing of canals for the season of 1909.

Freight traffic in 1908 and 1909.

Diagrams showing dimensions of smallest lock on each canal, &c.

Dimensions and other features of the several canal works, and descriptions of the intermediate water navigations:

1. Between Montreal and Port Arthur or Fort William, Lake Superior.
2. Montreal, Ottawa and Kingston.
3. River Richelieu and Chambly Canal to Lake Champlain.
4. Trent Canal.
5. St. Peters Canal.

INTERCOLONIAL RAILWAY.

The Intercolonial railway touches six Atlantic ocean ports, namely, Point du Chêne, Pictou, Halifax, St. John, Sydney and North Sydney, as well as the River St. Lawrence ports of Lévis, opposite Québec, and Montreal.

The total length of the road operated during the year ended March 31, 1910, was 1,447.13 miles.

The following are the through distances:—

| | Miles. |
|--|--------|
| Montreal to Halifax, via Lévis.. | 827 |
| “ “ St. John, via Lévis.. | 740 |
| “ “ Sydney, via Lévis.. | 990 |
| “ “ North Sydney, via Lévis.. | 983 |

Freight is carried direct via St. Henri, which would reduce each of the above distances by 3 miles.

MAIN LINE AND BRANCHES.

(As remeasured in 1908.)

| | Miles. |
|---|----------|
| Halifax to Truro.. | 61.87 |
| Dartmouth Branch | 12.00 |
| Truro to Moncton.. | 123.77 |
| Moncton to St. John.. | 89.31 |
| Pointe du Chêne Branch.. | 11.98 |
| Moncton to Campbellton.. | 185.37 |
| Campbellton to Ste. Flavie.. | 105.03 |
| Indiantown Branch.. | 13.45 |
| Ste. Flavie to Rivière du Loup.. | 83.29 |
| Rivière Ouelle Branch.. | 6.19 |
| Rivière du Loup to Pointe Lévis.. | 115.55 |
| Hadlow to Chaudière Curve.. | 5.63 |
| Chaudière to Ste. Rosalie.. | 115.53 |
| St. Charles Junction to Chaudière Junction.. | 16.73 |
| Nicolet Branch.. | 14.70 |
| Dalhousie Branch.. | 6.28 |
| Pictou to Oxford Junction.. | 69.39 |
| Brown's Point to Stellarton.. | 11.90 |
| Junction near New Glasgow to Pictou Landing.. | 8.18 |
| Pugwash Junction to Pugwash | 4.54 |
| Truro to Mulgrave.. | 122.30 |
| Mulgrave to Point Tupper (Ferry).. | 0.80 |
| Point Tupper to Sydney.. | 91.17 |
| North Sydney Junction to Sydney Mines.. | 7.07 |
| Fredericton to Loggieville.. | 124.80 |
| | <hr/> |
| | 1,406.83 |

LEASED.

| | | |
|---|-------|----------|
| Length of main line from Pointe Lévis to Hadlow.. | 1.48 | |
| Chaudière Curve to Chaudière.. | 1.19 | |
| Ste. Rosalie Junction to Montreal.. | 37.63 | 40.30 |
| | | <hr/> |
| Total miles.. | | 1,447.13 |

FREIGHT BRANCHES OWNED.

| | Miles. |
|---|--------|
| Switch near North street to D.W.T., Halifax.. | 0.85 |
| Halifax Cotton Factory.. | 2.10 |
| Dartmouth Station to end of line.. | 2.12 |
| Sydney Station to wharf.. | 1.06 |
| North Sydney Station to wharf.. | 0.82 |
| Switch near Pictou landing to coal wharf.. | 0.75 |
| Pictou Station to wharf.. | 0.15 |
| Pictou Station to Copper Crown Smelter.. | 0.72 |
| Logan's Tannery siding.. | 0.48 |
| Pugwash Station to wharf.. | 0.07 |
| Sackville Wharf Branch.. | 0.47 |
| Dorchester Wharf Branch.. | 1.00 |
| Moncton Wharf Branch.. | 1.00 |
| Courtney Bay Branch.. | 2.39 |
| St. John water front extension.. | 0.44 |
| St. John Station to Deep Water Wharf.. | 0.28 |
| Newcastle Wharf Branch.. | 1.75 |
| Dalhousie Station to wharf.. | 0.50 |
| Campbellton Wharf Branch.. | 0.43 |
| Rimouski Wharf Branch.. | 2.00 |
| Trois Pistoles Spur.. | 2.38 |
| Rivière du Loup Wharf Branch.. | 4.35 |
| St. Pacôme Spur.. | 1.27 |
| Nicolet Station to wharf.. | 2.08 |
| Carmel Branch, main line to village.. | 1.05 |
| Blackville to Indiantown.. | 8.50 |
| Fort Lawrence Spur | 1.18 |
| Wallace Spur.. | 2.00 |
| Petit Rocher Spur to wharf.. | 1.35 |
| | <hr/> |
| | 43.54 |

WINDSOR BRANCH.

This road extends from Windsor Junction, on the Intercolonial railway, to Windsor, N.S., a distance of 32 miles.

PRINCE EDWARD ISLAND RAILWAY.

| | Miles. |
|---|--------|
| Souris to Tignish.. | 166 |
| Mount Stewart to Georgetown.. | 24 |
| Charlottetown to Royalty Junction.. | 5 |
| Emerald Junction to Cape Traverse.. | 13 |
| Alberton to Cascumpec wharf.. | 1 |
| Charlottetown to Murray Harbour.. | 52.3 |
| Montague Junction to Montague.. | 6.2 |
| | <hr/> |
| | 267.5 |
| | <hr/> |

SESSIONAL PAPER No. 20

INTERCOLONIAL RAILWAY.

The following table shows the working expenses, gross earnings, the tonnage of freight and number of passengers carried each year since July 1, 1876.

| Year. | Average Miles in Operation. | Working Expenses. | Gross Earnings. | Profit. | Loss. | Tons of Freight carried. | No. of Passengers carried. |
|----------------|-----------------------------------|----------------------|--------------------|------------|--------------|--------------------------------|----------------------------------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. | | |
| 1876-77..... | 714 | 1,661,673 55 | 1,154,445 33 | ..... | 507,228 22 | 421,327 | 613,420 |
| 1877-78 | 714 | 1,816,273 56 | 1,378,946 78 | ..... | 432,326 78 | 522,710 | 618,957 |
| 1878-79 | 714 | 2,010,183 22 | 1,294,009 69 | ..... | 716,083 53 | 510,861 | 640,101 |
| 1879-80..... | 829 | 1,603,429 71 | 1,506,298 48 | ..... | 97,131 23 | 561,924 | 581,483 |
| 1880-81 | 840 | 1,759,851 27 | 1,760,393 92 | 542 65 | ..... | 725,777 | 631,245 |
| 1881-82..... | 840 | 2,069,657 45 | 2,079,262 66 | 9,605 18 | ..... | 838,956 | 779,994 |
| 1882-83..... | 840 | 2,360,373 27 | 2,370,910 10 | 17,547 18 | ..... | 970,961 | 878,600 |
| 1883-84 | 887 | 2,377,433 62 | 2,384,414 92 | 6,981 30 | ..... | 1,009,237 | 944,636 |
| 1884-85 | 941 | 2,519,751 56 | 2,441,203 66 | ..... | 78,547 90 | 989,986 | 957,228 |
| 1885-86..... | 946 | 2,583,999 67 | 2,450,093 88 | ..... | 133,905 79 | 1,023,788 | 932,880 |
| 1886-87..... | 977 | 2,922,369 62 | 2,660,116 93 | ..... | 262,252 69 | 1,143,020 | 942,784 |
| 18-7-88 | 971 | 3,366,781 74 | 2,983,336 05 | ..... | 383,445 69 | 1,288,823 | 1,040,163 |
| 1888-89..... | 971 | 3,244,647 73 | 2,967,801 00 | ..... | 276,847 73 | 1,218,877 | 1,136,272 |
| 1889-90..... | 971 | 3,560,575 74 | 3,012,739 87 | ..... | 847,835 87 | 1,368,819 | 1,219,233 |
| 1890-91..... | 1,094 | 3,662,341 94 | 2,977,395 38 | ..... | 684,946 56 | 1,304,534 | 1,298,304 |
| 1891-92..... | 1,142 | 3,439,377 00 | 2,945,441 97 | ..... | 493,935 03 | 1,264,575 | 1,297,732 |
| 1892-93..... | 1,142 | 3,045,317 50 | 3,065,499 09 | 20,181 59 | ..... | 1,388,080 | 1,292,878 |
| 1893-94..... | 1,142 | 2,981,671 98 | 2,987,510 27 | 5,838 29 | ..... | 1,342,710 | 1,301,062 |
| 1894-95 | 1,142 | 2,936,902 74 | 2,940,717 95 | 3,815 21 | ..... | 1,276,816 | 1,352,667 |
| 1895-96..... | 1,142 | 3,012,827 62 | 2,957,670 10 | ..... | 55,187 52 | 1,379,618 | 1,471,866 |
| 1896-97..... | 1,145 | 2,925,968 67 | 2,866,028 02 | ..... | 59,940 65 | 1,296,028 | 1,501,690 |
| 1897-98..... | 1,201 | 3,327,648 51 | 3,117,669 85 | ..... | 209,978 66 | 1,434,576 | 1,523,444 |
| 1898-99..... | 1,301 | 3,675,686 21 | 3,738,331 44 | 62,645 43 | ..... | 1,750,761 | 1,603,095 |
| 1899-1900..... | 1,301 | 4,431,404 69 | 4,552,071 71 | 120,667 02 | ..... | 2,151,208 | 1,029,754 |
| 1900-01..... | 1,301 | 5,460,422 64 | 4,972,235 87 | ..... | 488,186 77 | 2,111,310 | 2,517,295 |
| 1901-02..... | 1,301 | 5,574,563 30 | 5,671,385 91 | 96,822 61 | ..... | 2,385,816 | 2,186,226 |
| 1902-03..... | 1,315 | 6,196,653 19 | 6,324,323 72 | 127,670 53 | ..... | 2,790,737 | 2,404,230 |
| 1903-04..... | 1,321 | 7,239,982 04 | 6,339,231 43 | ..... | 900,750 61 | 2,664,149 | 2,663,156 |
| 1904-05..... | 1,446 | 8,508,826 75 | 6,783,522 83 | ..... | 1,725,303 92 | 2,782,257 | 2,810,960 |
| 1905-06..... | 1,446 | 7,581,914 36 | 7,643,829 90 | 61,915 54 | ..... | 3,156,189 | 2,737,160 |
| 1906-07..... | 1,448 | 6,030,171 83 | 6,248,311 00 | 218,139 17 | ..... | 2,606,073 | 2,044,847 |
| 1907-08..... | 1,448 | 9,157,435 53 | 9,173,558 80 | 16,123 27 | ..... | 4,134,064 | 2,789,371 |
| 1908-09..... | *1,447-13 | 9,328,021 55 | 8,527,069 46 | ..... | 800,952 09 | 3,573,972 | 2,907,237 |
| 1909-10..... | 1,447-13 | 8,645,070 33 | 9,268,234 99 | 623,164 66 | ..... | 3,927,240 | 3,122,324 |

† The year 1906-07 was nine months only ; the Canadian fiscal year having been changed to close on March 31, instead of June 30.

* The railway was remeasured in this year.

INTERCOLONIAL RAILWAY.

STATEMENT of Earnings, yearly, from July 1, 1876, to March 31, 1910.

| Year. | Miles in Operation. | Passenger Traffic. | Freight Traffic. | Mails and Sundries. | Total. |
|--------------------|---------------------------|-----------------------|---------------------|---------------------------|---------------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 1876-7. | 714 | 460,368 15 | 607,564 99 | 86,512 21 | 1,154,443 33 |
| 1877-8. | 714 | 475,256 82 | 801,709 82 | 101,985 07 | 1,378,946 78 |
| 1878-9. | 714 | 451,893 29 | 752,490 85 | 88,715 55 | 1,294,009 69 |
| 1879-80. | 829 | 490,338 66 | 915,486 50 | 100,473 32 | 1,506,298 48 |
| 1880-1. | 840 | 545,114 48 | 1,113,872 21 | 101,407 23 | 1,760,493 92 |
| 1881-2. | 840 | 651,296 94 | 1,303,496 00 | 124,470 72 | 2,079,262 66 |
| 1882-3. | 840 | 741,992 72 | 1,487,601 98 | 141,326 40 | 2,379,910 10 |
| 1883-4. | 887 | 775,783 77 | 1,461,390 37 | 147,240 78 | 2,383,414 92 |
| 1884-5. | 941 | 747,285 13 | 1,542,052 10 | 151,566 35 | 2,441,203 66 |
| 1885-6. | 946 | 765,900 03 | 1,523,487 72 | 160,706 13 | 2,450,093 88 |
| 1886-7. | 977 | 828,328 28 | 1,677,971 59 | 153,817 06 | 2,660,116 93 |
| 1887-8. | 971 | 884,448 07 | 1,932,877 85 | 166,010 13 | 2,983,336 95 |
| 1888-9. | 971 | 906,246 47 | 1,909,094 44 | 152,460 09 | 2,967,801 00 |
| 1889-90. | 971 | 895,094 53 | 1,964,646 86 | 152,993 48 | 3,012,739 87 |
| 1890-1. | 1,094 | 962,316 88 | 1,854,629 88 | 160,448 62 | 2,977,395 38 |
| 1891-2. | 1,142 | 961,427 94 | 1,803,529 03 | 180,485 00 | 2,945,441 97 |
| 1892-3. | 1,142 | 1,002,912 74 | 1,868,853 84 | 184,468 80 | 3,065,499 09 |
| 1893-4. | 1,142 | 958,915 13 | 1,834,126 34 | 193,762 51 | 2,987,502 27 |
| 1894-5. | 1,142 | 963,914 44 | 1,782,608 54 | 194,194 97 | 2,940,717 95 |
| 1895-6. | 1,142 | 971,426 26 | 1,788,813 18 | 197,400 66 | 2,957,640 10 |
| 1896-7. | 1,145 | 979,005 57 | 1,687,050 42 | 199,472 03 | 2,866,028 02 |
| 1897-8. | 1,201 | 1,053,864 64 | 1,857,740 06 | 206,065 15 | 3,117,669 85 |
| 1898-9. | 1,315 | 1,167,453 16 | 2,348,096 58 | 222,781 70 | 3,738,331 44 |
| 1899-1900. | 1,315 | 1,404,469 87 | 2,912,790 52 | 234,811 32 | 4,552,071 91 |
| 1900-1. | 1,315 | 1,607,166 79 | 3,121,006 15 | 244,062 93 | 4,972,235 87 |
| 1901-2. | 1,315 | 1,770,941 13 | 3,644,513 42 | 255,931 36 | 5,761,385 91 |
| 1902-3. | 1,315 | 1,927,916 87 | 4,128,255 00 | 268,151 75 | 6,324,323 72 |
| 1903-4. | 1,321 | 2,021,568 40 | 4,041,122 48 | 276,540 55 | 6,339,231 43 |
| 1904-5. | 1,446 | 2,105,066 75 | 4,373,178 75 | 305,277 53 | 6,783,522 83 |
| 1905-6. | 1,446 | 2,297,716 52 | 5,019,805 53 | 326,307 85 | 7,643,829 90 |
| 1906-7. | 1,448 | 1,952,438 88 | 4,032,745 00 | 263,127 12 | *6,248,311 00 |
| 1907-8. | 1,448 | 2,711,416 98 | 6,054,493 45 | 407,643 37 | 9,173,358 80 |
| 1908-9. | *1,447 13 | 2,628,218 57 | 5,502,550 58 | 396,300 31 | 8,527,069 46 |
| 1909-10. | 1,447 13 | 2,765,884 66 | 6,048,884 18 | 453,466 15 | 9,268,234 99 |

As remeasured in this year. † 1906-07, nine months only.

SESSIONAL PAPER No. 20

INTERCOLONIAL RAILWAY.

STATEMENT showing the Number of Tons of Local and Through Freight carried, yearly, from July 1, 1876, to March 31, 1910.

| Year. | Miles in Operation. | Local Freight. | Through Freight. | Total. |
|-----------------|---------------------------|---|---------------------|------------|
| 1876-7. | 714 | The information for these years was destroyed when the general offices in Moncton were burned. | | 421,327 |
| 1877-8. | 714 | | | 522,710 |
| 1878-9. | 714 | | | 510,861 |
| 1879-80. | 829 | | | 561,924 |
| 1880-1. | 840 | | | 725,777 |
| 1881-2. | 840 | 571,784 | 267,272 | 838,956 |
| 1882-3. | 840 | 537,025 | 443,936 | 970,961 |
| 1883-4. | 887 | 584,581 | 424,656 | 1,009,237 |
| 1884-5. | 941 | 506,574 | 483,352 | 989,936 |
| 1885-6. | 946 | 580,076 | 443,712 | 1,023,788 |
| 1886-7. | 977 | 633,455 | 509,565 | 1,143,020 |
| 1887-8. | 971 | 727,599 | 561,224 | 1,288,823 |
| 1888-9. | 971 | 624,436 | 594,441 | 1,218,877 |
| 1889-90. | 971 | 756,696 | 612,123 | 1,368,819 |
| 1890-1. | 1,094 | 797,492 | 507,042 | 1,304,534 |
| 1891-2. | 1,142 | 750,783 | 513,792 | 1,264,575 |
| 1892-3. | 1,142 | 1,030,628 | 357,452 | 1,388,080 |
| 1893-4. | 1,142 | 966,114 | 376,596 | 1,342,710 |
| 1894-5. | 1,142 | 901,374 | 366,442 | 1,267,816 |
| 1895-6. | 1,142 | 1,101,229 | 368,389 | 1,379,618 |
| 1896-7. | 1,145 | 927,167 | 368,859 | 1,296,028 |
| 1897-8. | 1,201 | 1,053,569 | 381,007 | 1,434,576 |
| 1898-9. | 1,315 | 1,351,569 | 399,192 | 1,750,761 |
| 1899-1900. | 1,315 | 1,713,928 | 437,280 | 2,151,208 |
| 1900-1. | 1,315 | 1,633,671 | 477,639 | 2,111,310 |
| 1901-2. | 1,315 | 1,914,551 | 471,265 | 2,385,816 |
| 1902-3. | 1,315 | 2,239,993 | 550,744 | 2,790,737 |
| 1903-4. | 1,321 | 2,123,261 | 540,888 | 2,664,149 |
| 1904-5. | 1,446 | 2,119,528 | 662,729 | 2,782,257 |
| 1905-6. | 1,446 | 2,413,863 | 742,326 | 3,156,189 |
| 1906-7. | 1,448 | 1,996,869 | 609,204 | *2,606,073 |
| 1907-8. | 1,448 | 3,227,435 | 906,629 | 4,134,064 |
| 1908-9. | †1,447·13 | 2,742,454 | 831,518 | 3,573,972 |
| 1909-10. | 1,447·13 | 2,958,642 | 968,598 | 3,927,240 |

* 1906-07 nine months only. † As remeasured in this year.

INTERCOLONIAL RAILWAY.

STATEMENT of the Number of Local and Through Passengers carried, yearly, from July 1, 1876, to March 31, 1910.

| Year. | Miles in Operation. | Number of Local Passengers. | Number of Through Passengers. | Total. |
|--------------|---------------------------|---|-------------------------------------|-----------|
| 1876-7.. | 714 | The information for these years was destroyed when the general offices in Moncton were burned. | | 613,420 |
| 1877-8.. | 714 | | | 619,957 |
| 1878-9.. | 714 | | | 640,101 |
| 1879-80 | 829 | | | 581,483 |
| 1880-1.. | 840 | | | 631,245 |
| 1881-2.. | 840 | 647,534 | 132,460 | 779,994 |
| 1882-3.. | 840 | 728,186 | 150,414 | 878,600 |
| 1883-4.. | 887 | 784,715 | 159,921 | 944,636 |
| 1884-5.. | 941 | 812,028 | 145,200 | 957,228 |
| 1885-6.. | 946 | 784,817 | 148,063 | 932,880 |
| 1886-7.. | 977 | 814,032 | 128,752 | 942,784 |
| 1887-8.. | 971 | 948,324 | 91,839 | 1,040,163 |
| 1888-9.. | 971 | 1,050,592 | 85,630 | 1,136,272 |
| 1889-90. | 971 | 1,112,695 | 91,531 | 1,219,233 |
| 1890-1.... | 1,094 | 1,203,814 | 94,490 | 1,298,304 |
| 1891-2.... | 1,142 | 1,198,649 | 99,083 | 1,297,732 |
| 1892-3.... | 1,142 | 1,188,827 | 104,051 | 1,292,878 |
| 1893-4.... | 1,142 | 1,216,027 | 85,035 | 1,301,062 |
| 1894-5 . | 1,142 | 1,272,284 | 80,383 | 1,352,667 |
| 1895-6 | 1,142 | 1,386,803 | 85,063 | 1,471,866 |
| 1896-7 . | 1,145 | 1,416,631 | 85,059 | 1,501,690 |
| 1897-8.... | 1,201 | 1,438,590 | 89,854 | 1,523,444 |
| 1898-9 .. | 1,315 | 1,504,652 | 98,443 | 1,603,095 |
| 1899-1900. | 1,315 | 1,878,858 | 112,896 | 1,991,754 |
| 1900-1 . | 1,315 | 1,905,599 | 119,696 | 2,025,295 |
| 1901-2 ... | 1,315 | 2,061,196 | 125,030 | 2,186,226 |
| 1902-3.... | 1,315 | 2,255,013 | 149,217 | 2,404,230 |
| 1903-4 .. | 1,321 | 2,447,843 | 215,313 | 2,663,156 |
| 1904-5.. | 1,446 | 2,589,928 | 221,032 | 2,810,960 |
| 1905-6... | 1,446 | 2,491,472 | 245,688 | 2,737,160 |
| *1906-7..... | 1,448 | 1,853,126 | 191,721 | 2,044,847 |
| 1907-8.... | 1,448 | 2,593,886 | 195,485 | 2,789,371 |
| 1908-9... | †1,447·13 | 2,656,217 | 251,020 | 2,907,237 |
| 1909-10..... | 1,447·13 | 2,873,547 | 248,777 | 3,122,324 |

* 1903-07 nine months only. † As remeasured in this year.

SESSIONAL PAPER No. 20

The following table shows the number of Tons of Coal carried over the Intercolonial railway from the Nova Scotia collieries to Ste. Rosalie, Montreal and St. John for points west thereof, and to local stations in each year since July 1, 1876.

| Year | For the West. | | | To Local Stations. | Total. |
|----------------|------------------|---------------|---------------|--------------------|-----------|
| | Via Ste-Rosalie. | Via Montreal. | Via St. John. | | |
| 1876-7..... | | | | 103,420 | 103,420 |
| 1877-8..... | | | | 97,043 | 97,043 |
| 1878-9..... | | 300 | | 112,232 | 112,532 |
| 1879-80..... | | 1,097 | | 135,369 | 136,466 |
| 1880-1..... | | 6,102 | 4,022 | 174,483 | 184,607 |
| 1881-2..... | | 18,015 | 11,779 | 218,364 | 248,158 |
| 1882-3..... | | 12,837 | 22,206 | 227,380 | 262,423 |
| 1883-4..... | | 32,014 | 19,532 | 252,014 | 293,562 |
| 1884-5..... | | 133,440 | 1,773 | 213,791 | 349,004 |
| 1885-6..... | | 171,170 | 21,150 | 215,272 | 407,592 |
| 1886-7..... | | 192,871 | 27,536 | 233,178 | 453,585 |
| 1887-8..... | | 183,704 | 36,228 | 309,727 | 529,659 |
| 1888-9..... | | 160,026 | 27,923 | 338,538 | 526,487 |
| 1889-0..... | | 164,453 | 25,126 | 366,967 | 554,546 |
| 1890-1..... | | 113,996 | 69,213 | 344,829 | 498,038 |
| 1891-2..... | | 35,447 | 5,918 | 392,441 | 433,806 |
| 1892-3..... | | 136,868 | 3,775 | 402,653 | 543,296 |
| 1893-4..... | | 102,273 | 8,028 | 367,390 | 478,691 |
| 1894-5..... | | 67,082 | 7,865 | 310,253 | 385,200 |
| 1895-6..... | | 53,124 | 9,681 | 369,708 | 432,513 |
| 1896-7..... | | 38,395 | 12,305 | 331,469 | 382,172 |
| 1897-8..... | | 9,084 | 9,796 | 351,069 | 369,949 |
| 1898-99..... | | 4,644 | 5,399 | 484,163 | 494,206 |
| 1899-1900..... | | 3,495 | | 599,714 | 603,289 |
| 1900-1..... | 136 | | | 506,454 | 506,590 |
| 1901-2..... | 1,131 | 5,763 | 3,640 | 546,986 | 557,520 |
| 1902-3..... | 2,200 | 7,817 | 6,775 | 725,727 | 742,519 |
| 1903-4..... | 2,260 | 637 | 513 | 691,346 | 694,761 |
| 1904-5..... | 800 | 265 | 5,022 | 596,290 | 602,377 |
| 1905-6..... | 7,542 | 1,625 | 661 | 610,444 | 620,272 |
| *1906-7..... | 1,737 | 2,808 | 3,252 | 624,833 | 632,630 |
| 1907-8..... | 22 | 183 | 4,245 | 1,061,694 | 1,066,134 |
| 1908-9..... | 514 | 945 | 4,243 | 909,050 | 914,752 |
| 1909-10..... | 42 | 890 | 1,452 | 1,003,120 | 1,005,504 |

*1906-07 nine months only.

1 GEORGE V., A. 1911

TABLE showing the number of Bushels of Grain carried during each year over the Intercolonial railway for shipment since July 1, 1876.

| Year. | Bushels. | | Total. | Year. | Bushels. | | Total. |
|--------------|----------------|---------------|-----------|----------------|----------------|---------------|---------|
| | Via Chaudière. | Via St. John. | | | Via Chaudière. | Via St. John. | |
| 1876-77..... | | | | 1893-94..... | Nil | 8,026 | 8,026 |
| 1877-78..... | | | | 1894-95..... | " | Nil. | Nil. |
| 1878-79..... | | | | 1895-96..... | " | " | " |
| 1879-80..... | | | | 1896-97..... | " | " | " |
| 1880-81..... | | | | 1897-98..... | 8,000 | " | 8,000 |
| 1881-82..... | | | | 1898-99..... | 30,000 | " | 30,000 |
| 1882-83..... | 31,011 | | 31,011 | 1899-1900..... | 13,239 | " | 13,239 |
| 1883-84..... | 73,389 | | 73,389 | 1900-01..... | 147 | " | 147 |
| 1884-85..... | 300,901 | | 300,901 | 1901-02..... | Nil. | " | Nil. |
| 1885-86..... | 389,122 | | 389,122 | 1902-03..... | " | " | " |
| 1886-87..... | 575,880 | | 575,880 | 1903-04..... | 147,438 | " | 147,438 |
| 1887-88..... | 69,021 | | 69,021 | 1904-05..... | Nil | " | Nil. |
| 1888-89..... | 129,725 | | 129,725 | 1905-06..... | *170,000 | | 170,000 |
| 1889-90..... | 502,012 | | 502,012 | 1906-07..... | | | Nil. |
| 1890-91..... | 148,803 | 59,543 | 218,337 | 1907-08..... | | | " |
| 1891-92..... | 845,997 | 519,500 | 1,265,497 | 1908-09..... | | | " |
| 1892-93..... | 156,306 | 197,666 | 352,975 | 1909-10..... | | | " |

* Via Montreal. 1906-1907 nine months only.

TABLE showing the number of Barrels of Flour and Meal carried during each year over the Intercolonial railway since July 1, 1876.

| Year. | Barrels. | Year. | Barrels. |
|--------------|-----------|----------------|-----------|
| 1876-77..... | 254,710 | 1893-94..... | 944,967 |
| 1877-78..... | 557,778 | 1894-95..... | 938,351 |
| 1878-79..... | 630,329 | 1895-96..... | 822,097 |
| 1879-80..... | 535,248 | 1896-97..... | 847,701 |
| 1880-81..... | 672,310 | 1897-98..... | 987,408 |
| 1881-82..... | 692,095 | 1898-99..... | 1,157,250 |
| 1882-83..... | 983,916 | 1899-1900..... | 1,234,077 |
| 1883-84..... | 817,134 | 1900-01..... | 1,292,106 |
| 1884-85..... | 935,977 | 1901-02..... | 1,311,707 |
| 1885-86..... | 761,127 | 1902-03..... | 1,521,540 |
| 1886-87..... | 763,894 | 1903-04..... | 1,607,050 |
| 1887-88..... | 871,838 | 1904-05..... | 1,769,480 |
| 1888-89..... | 948,514 | 1905-06..... | 1,882,630 |
| 1889-90..... | 1,116,050 | 1906-07..... | 1,531,140 |
| 1890-91..... | 1,013,129 | 1907-08..... | 1,528,620 |
| 1891-92..... | 954,015 | 1908-09..... | 1,466,920 |
| 1892-93..... | 856,913 | 1909-10..... | 1,608,170 |

1906-07, nine months only.

SESSIONAL PAPER No. 20

TABLE showing the number of Bushels of Grain carried during each year over the Inter-colonial railway since July 1, 1876.

| Year. | Bushels. | Year. | Bushels. |
|--------------|-----------|----------------|-----------|
| 1876-77..... | 292,852 | 1893-94..... | 1,304,684 |
| 1877-78..... | 331,170 | 1894-95..... | 1,036,384 |
| 1878-79..... | 302,921 | 1895-96..... | 1,064,385 |
| 1879-80..... | 534,021 | 1896-97..... | 1,093,499 |
| 1880-81..... | 565,678 | 1897-98..... | 1,551,372 |
| 1881-82..... | 560,253 | 1898-99..... | 2,595,353 |
| 1882-83..... | 1,195,601 | 1899-1900..... | 2,720,453 |
| 1883-84..... | 654,673 | 1900-1901..... | 3,535,364 |
| 1884-85..... | 734,902 | 1901-02..... | 2,959,761 |
| 1885-86..... | 849,800 | 1902-03..... | 3,392,252 |
| 1886-87..... | 1,018,395 | 1903-04..... | 2,788,772 |
| 1887-88..... | 1,219,035 | 1904-05..... | 3,317,910 |
| 1888-89..... | 1,256,158 | 1905-06..... | 2,924,226 |
| 1889-90..... | 2,610,202 | 1906-07..... | 2,231,864 |
| 1890-91..... | 2,890,921 | 1907-08..... | 4,567,245 |
| 1891-92..... | 3,776,677 | 1908-09..... | 4,727,268 |
| 1892-93..... | 1,514,619 | 1909-10..... | 7,074,042 |

1906-07 nine months only.

TABLE showing the quantity of lumber in feet carried during each year over the Inter-colonial railway since July 1, 1876.

| Year. | Feet. | Year. | Feet. |
|--------------|-------------|----------------|-------------|
| 1876-77..... | 50,096,474 | 1893-94..... | 200,507,949 |
| 1877-78..... | 56,626,547 | 1894-95..... | 202,247,269 |
| 1878-79..... | 55,626,696 | 1895-96..... | 226,332,715 |
| 1879-80..... | 55,462,654 | 1896-97..... | 243,355,725 |
| 1880-81..... | 72,841,388 | 1897-98..... | 354,093,816 |
| 1881-82..... | 78,356,418 | 1898-99..... | 306,554,031 |
| 1882-83..... | 104,633,417 | 1899-1900..... | 379,350,074 |
| 1883-84..... | 131,120,948 | 1900-1901..... | 396,858,964 |
| 1884-85..... | 138,493,675 | 1901-02..... | 428,051,029 |
| 1885-86..... | 117,186,512 | 1902-03..... | 459,231,589 |
| 1886-87..... | 161,801,763 | 1903-04..... | 465,379,803 |
| 1887-88..... | 197,755,272 | 1904-05..... | 518,434,310 |
| 1888-89..... | 199,507,777 | 1905-06..... | 572,878,600 |
| 1889-90..... | 210,886,071 | 1906-07..... | 452,602,703 |
| 1890-91..... | 184,188,324 | 1907-08..... | 754,759,383 |
| 1891-92..... | 175,474,340 | 1908-09..... | 571,395,101 |
| 1892-93..... | 181,211,013 | 1909-10..... | 677,805,611 |

1906-07 nine months only.

1 GEORGE V., A. 1911

TABLE showing the number of Live Stock carried during each year over the Inter-colonial railway since July 1, 1876.

| Year. | Number. | Year. | Number. |
|--------------|---------|----------------|---------|
| 1876-77..... | 34,414 | 1893-94..... | 79,203 |
| 1877-78..... | 46,498 | 1894-95..... | 72,106 |
| 1878-79..... | 47,584 | 1895-96..... | 64,051 |
| 1879-80..... | 70,990 | 1896-97..... | 72,082 |
| 1880-81..... | 61,574 | 1897-98..... | 89,301 |
| 1881-82..... | 73,479 | 1898-99..... | 109,821 |
| 1882-83..... | 68,338 | 1899-1900..... | 92,813 |
| 1883-84..... | 60,090 | 1900-01..... | 95,923 |
| 1884-85..... | 70,785 | 1901-02..... | 98,495 |
| 1885-86..... | 74,498 | 1902-03..... | 127,060 |
| 1886-87..... | 82,896 | 1903-04..... | 113,006 |
| 1887-88..... | 98,302 | 1904-05..... | 110,670 |
| 1888-89..... | 85,960 | 1905-06..... | 106,589 |
| 1889-90..... | 80,771 | 1906-07..... | 97,381 |
| 1890-91..... | 95,529 | 1907-08..... | 99,824 |
| 1891-92..... | 87,889 | 1908-09..... | 104,165 |
| 1892-93..... | 93,369 | 1909-10..... | 106,712 |

1906-07 nine months.

TABLE showing the number of Tons of Ocean-borne goods to and from Europe carried over the Intercolonial railway during each year since July 1, 1876.

| Year. | Via Ste. Rosalie and from the West. | Via Montreal to and from the West. | Via St. John to and from the West. | To and from Local Stations. | Total. |
|----------------|-------------------------------------|------------------------------------|------------------------------------|-----------------------------|---------|
| 1876-77..... | | | | | |
| 1877-78..... | | 14,949 | | 3,405 | 18,354 |
| 1878-79..... | | 21,628 | | 2,643 | 24,271 |
| 1879-80..... | | 21,073 | | 4,952 | 26,025 |
| 1880-81..... | | 15,454 | | 3,334 | 18,788 |
| 1881-82..... | | 21,607 | | 4,168 | 25,775 |
| 1882-83..... | | 24,875 | | 7,911 | 32,786 |
| 1883-84..... | | 19,696 | | 6,533 | 26,229 |
| 1884-85..... | | 22,787 | | 8,405 | 31,192 |
| 1885-86..... | | 13,464 | | 8,216 | 21,680 |
| 1886-87..... | | 16,923 | | 9,811 | 26,734 |
| 1887-88..... | | 41,864 | | 8,878 | 50,742 |
| 1888-89..... | | 17,340 | | 11,481 | 28,821 |
| 1889-90..... | | 9,895 | | 11,730 | 21,625 |
| 1890-91..... | | 9,923 | | 10,764 | 20,687 |
| 1891-92..... | | 9,719 | | 23,835 | 33,571 |
| 1892-93..... | | 7,295 | | 12,319 | 19,714 |
| 1893-94..... | | 3,023 | 204 | 13,455 | 16,682 |
| 1894-95..... | | 6,749 | 213 | 10,399 | 17,361 |
| 1895-96..... | | 3,767 | 314 | 16,748 | 20,829 |
| 1896-97..... | | 2,654 | 263 | 17,239 | 20,156 |
| 1897-98..... | | 5,950 | 1,637 | 18,633 | 26,220 |
| 1898-99..... | | 2,462 | 243 | 31,555 | 34,263 |
| 1899-1900..... | | 6,880 | 307 | 37,108 | 39,794 |
| 1900-01..... | 322 | 7,780 | 1,142 | 155,514 | 163,838 |
| 1901-02..... | 1,106 | 11,925 | 1,528 | 172,733 | 183,147 |
| 1902-03..... | 817 | 21,377 | 1,194 | 124,695 | 138,631 |
| 1903-04..... | 2,079 | 15,325 | 2,994 | 146,070 | 174,520 |
| 1904-05..... | 284 | 17,217 | 3,687 | 85,853 | 105,149 |
| 1905-06..... | 2,026 | 15,922 | 5,337 | 128,462 | 153,042 |
| 1906-07..... | 1,384 | 16,652 | 436 | 110,447 | 128,219 |
| 1907-08..... | 2,440 | 16,652 | 519 | 134,541 | 154,052 |
| 1908-09..... | 2,487 | 23,402 | 649 | 119,913 | 146,451 |
| 1909-10..... | 2,367 | 21,064 | 5,818 | 131,273 | 160,522 |

1906-07 nine months only.

SESSIONAL PAPER No. 20

TABLE showing the number of Tons of Raw and Refined Sugar carried over the Inter-colonial Railway during each year since since July 1, 1876.

| Year. | RAW SUGAR. | | | | | REFINED SUGAR. | | | | |
|-------------|-------------------|---------------------------|---------------------------|-------------------|--------|-------------------------------|---------------------------|---------------------------|-------------------|--------|
| | Via Ste. Rosalie. | To Montreal for the west. | To St. John for the West. | To Local Stations | Total. | To Ste. Rosalie for the West. | To Montreal for the West. | To St. John for the West. | To Local Stations | Total. |
| | | Tons. | Tons. | Tons. | Tons. | Tons. | Tons | Tons. | Tons. | Tons. |
| 1876-77.... | | 340 | | | 340 | | | | | |
| 1877-78.... | | 186 | | | 186 | | | | | |
| 1878-79.... | | 1,041 | | | 1,041 | | | | | |
| 1879-80.... | | 12,220 | | | 12,220 | | | | | |
| 1880-81.... | | 13,872 | | | 13,872 | | 4,022 | | 2,902 | 6,924 |
| 1881-82.... | | 14,256 | | 1,290 | 15,546 | | 7,146 | | 3,607 | 10,753 |
| 1882-83.... | | 9,465 | | 508 | 9,973 | | 11,126 | | 5,497 | 16,623 |
| 1883-84.... | | 13,778 | | 3,068 | 16,846 | | 14,543 | | 7,265 | 21,808 |
| 1884-85.... | | 10,381 | | 3,661 | 14,042 | | 18,024 | | 8,445 | 26,469 |
| 1885-86.... | | 4,394 | | 3,998 | 8,392 | | 7,674 | | 5,858 | 13,518 |
| 1886-87.... | | 20,450 | | 8,500 | 28,950 | | 15,044 | | 8,395 | 23,439 |
| 1887-88.... | | 14,320 | | 14,085 | 28,405 | | 21,641 | | 7,133 | 28,774 |
| 1888-89.... | | 24,358 | | 7,160 | 31,518 | | 12,955 | | 11,120 | 24,075 |
| 1889-90.... | | 7,390 | | 8,913 | 16,303 | | 6,778 | | 6,125 | 12,903 |
| 1890-91.... | | 5,088 | 4,670 | 8,215 | 17,973 | | 10,130 | 468 | 5,996 | 16,594 |
| 1891-92.... | | 7,142 | 3,960 | 10,535 | 21,637 | | 12,633 | 7,647 | 12,414 | 32,721 |
| 1892-93.... | | | | 10,137 | 10,137 | | 8,327 | 6,456 | 7,840 | 22,623 |
| 1893-94.... | | | | 6,775 | 6,775 | | 17,729 | 6,967 | 8,885 | 33,581 |
| 1894-95.... | | | | 10,342 | 10,342 | | 13,351 | 15,819 | 4,695 | 33,865 |
| 1895-96.... | | | | 9,824 | 9,824 | | 15,138 | 13,734 | 11,309 | 40,181 |
| 1896-97.... | | | | 4,925 | 4,925 | | 5,694 | 8,069 | 6,957 | 20,720 |
| 1897-98.... | | | | | | | 6,624 | 8,821 | 10,989 | 26,534 |
| 1898-99.... | | | | | | | 8,138 | 2,193 | 15,833 | 26,164 |
| 1899-1900.. | | 96 | | | 96 | | 9,795 | 257 | 19,655 | 29,907 |
| 1900-01.... | | 489 | | | 489 | 403 | 14,791 | 12 | 10,615 | 25,821 |
| 1901-02.... | | 90 | | 11,553 | 11,643 | 3,101 | 6,831 | 861 | 18,839 | 29,632 |
| 1902-03.... | | 194 | | 17,137 | 17,331 | 3,183 | 5,763 | 1,636 | 20,529 | 31,111 |
| 1903-04.... | 357 | 875 | | 7,495 | 8,727 | 6,013 | 8,628 | 879 | 29,400 | 44,920 |
| 1904-05.... | 602 | 509 | 78 | 1,495 | 15,684 | 1,446 | 7,107 | 224 | 22,937 | 31,764 |
| 1905-06.... | | 715 | 68 | 9,308 | 10,091 | 4,235 | 12,268 | 176 | 24,780 | 41,459 |
| 1906-07.... | | 394 | | 14,671 | 15,065 | 1,998 | 5,898 | 2,374 | 13,927 | 24,197 |
| 1907-08.... | | 912 | | 4,371 | 5,283 | 5,280 | 10,555 | 723 | 21,073 | 37,631 |
| 1908-09.... | 6 | 1,705 | | 6,817 | 8,528 | 5,095 | 8,906 | 979 | 21,527 | 36,507 |
| 1909-10.... | 309 | 2,000 | | 12,203 | 14,512 | 6,402 | 9,217 | 1,051 | 23,224 | 39,894 |

1906-07—nine months only.

TABLE showing the number of Tons of Fresh and Salt Fish carried over the Inter-colonial railway during each year since 1876.

| Year. | FRESH FISH. | | | | | SALT FISH. | | | | |
|------------------|-------------------|----------------|--------------|-------------------|--------|-------------------|----------------|--------------|-------------------|--------|
| | Via Ste. Rosalie. | Via Mont-real. | Via St. John | To Local Stations | Total. | Via Ste. Rosalie. | Via Mont-real. | Via St. John | To Local Stations | Total. |
| | Tons. | Tons. | Tons. | Tons. | Tons | Tons. | Tons. | Tons. | Tons. | Tons. |
| 1876-77.. .. . | | 530 | 921 | 527 | 1,978 | | 551 | 1,848 | 802 | 3,201 |
| 1877-78.. .. . | | 596 | 1,015 | 474 | 2,085 | | 898 | 1,644 | 805 | 3,347 |
| 1878-79.. .. . | | 471 | 1,336 | 817 | 2,624 | | 988 | 1,038 | 1,048 | 2,974 |
| 1879-80.. .. . | | 519 | 1,362 | 453 | 2,334 | | 1,612 | 2,238 | 959 | 4,809 |
| 1880-81.. .. . | | 498 | 1,879 | 920 | 3,297 | | 2,418 | 937 | 1,051 | 4,406 |
| 1881-82.. .. . | | 475 | 1,619 | 957 | 3,051 | | 4,031 | 1,066 | 2,487 | 7,584 |
| 1882-83.. .. . | | 542 | 334 | 393 | 1,319 | | 3,229 | 759 | 1,354 | 5,412 |
| 1883-84.. .. . | | 838 | 1,682 | 412 | 2,932 | | 1,322 | 1,143 | 1,224 | 3,689 |
| 1884-85.. .. . | | 1,062 | 1,885 | 484 | 3,431 | | 3,563 | 3,600 | 1,596 | 8,759 |
| 1885-86.. .. . | | 1,669 | 1,645 | 902 | 4,216 | | 1,689 | 2,047 | 3,376 | 7,103 |
| 1886-87.. .. . | | 1,278 | 1,572 | 2,008 | 4,858 | | 3,236 | 569 | 1,747 | 5,552 |
| 1887-88.. .. . | | 1,533 | 1,477 | 1,031 | 4,041 | | 2,617 | 476 | 1,099 | 4,193 |
| 1888-89.. .. . | | 2,474 | 2,000 | 1,870 | 6,344 | | 3,070 | 7,746 | 2,994 | 13,810 |
| 1889-90.. .. . | | 2,235 | 1,787 | 2,111 | 6,223 | | 2,449 | 847 | 3,288 | 6,584 |
| 1890-91.. .. . | | 2,029 | 2,788 | 1,848 | 6,665 | | 1,953 | 1,917 | 3,236 | 7,106 |
| 1891-92.. .. . | | 1,367 | 1,746 | 547 | 3,660 | | 1,946 | 928 | 1,889 | 4,763 |
| 1892-93.. .. . | | 1,683 | 1,875 | 3,340 | 6,898 | | 3,262 | 1,811 | 2,176 | 7,249 |
| 1893-94.. .. . | | 1,959 | 2,192 | 2,224 | 6,375 | | 2,921 | 1,814 | 2,962 | 7,697 |
| 1894-95.. .. . | | 2,006 | 3,726 | 1,160 | 6,892 | | 2,075 | 1,849 | 5,285 | 10,209 |
| 1895-96.. .. . | | 1,966 | 3,059 | 1,319 | 6,344 | | 1,863 | 1,087 | 2,791 | 5,741 |
| 1896-97.. .. . | | 3,307 | 3,115 | 1,286 | 7,708 | | 2,168 | 1,176 | 2,536 | 5,880 |
| 1897-98.. .. . | | 3,575 | 3,703 | 1,052 | 8,330 | | 1,729 | 1,066 | 2,210 | 5,005 |
| 1898-99.. .. . | | 1,210 | 2,070 | 3,305 | 6,583 | | 1,651 | 1,198 | 3,625 | 5,474 |
| 1899-1900.. .. . | | 2,547 | 2,706 | 3,686 | 8,939 | | 2,421 | 1,563 | 2,659 | 6,643 |
| 1900-01.. .. . | 37 | 2,009 | 3,207 | 4,125 | 9,393 | 360 | 3,419 | 1,346 | 4,643 | 9,768 |
| 1901-02.. .. . | 219 | 3,013 | 4,373 | 5,477 | 13,082 | 283 | 3,150 | 1,413 | 5,196 | 10,042 |
| 1902-03.. .. . | 140 | 2,269 | 3,040 | 4,842 | 10,289 | 493 | 2,808 | 1,615 | 6,579 | 11,495 |
| 1903-04.. .. . | 539 | 1,939 | 3,588 | 5,002 | 11,068 | 225 | 2,359 | 564 | 5,848 | 8,996 |
| 1904-05.. .. . | 779 | 1,902 | 3,674 | 5,516 | 11,871 | 433 | 2,673 | 272 | 6,759 | 10,137 |
| 1905-06.. .. . | 284 | 2,748 | 2,439 | 7,706 | 13,177 | 683 | 2,740 | 346 | 6,994 | 10,763 |
| 1906-07.. .. . | 320 | 2,882 | 3,712 | 7,400 | 14,314 | 307 | 3,156 | 416 | 6,348 | 10,227 |
| 1907-08.. .. . | 199 | 3,288 | 1,353 | 6,224 | 11,064 | 661 | 2,856 | 1,976 | 7,034 | 12,527 |
| 1908-09.. .. . | 312 | 2,965 | 2,794 | 6,946 | 13,017 | 668 | 4,078 | 1,632 | 4,866 | 11,244 |
| 1909-10.. .. . | 547 | 3,965 | 2,616 | 6,525 | 13,653 | 697 | 3,759 | 806 | 9,606 | 14,868 |

1906-07—nine months only

SESSIONAL PAPER No. 20

WINDSOR BRANCH.

This road is operated by the Dominion Atlantic Railway Company (formerly the Windsor and Annapolis Railway Company), under a lease which covers also running powers over the Interecolonial railway between Windsor Junction and Halifax. The company retain two-thirds of the gross earnings, and the government receive one-third of the gross earnings, for maintaining the way and works.

| Year. | Miles in oper- ation. | One-third gross earnings. | Proportion credited to line Windsor Junction to Halifax. | Proportion credited to the Windsor Branch. | Maintenance expenses. | Profit. | Loss. |
|-----------|-----------------------------|---------------------------------|--|---|--------------------------|-----------|---------|
| | | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| 1880-81.. | 32 | 28,434 29 | 7,217 76 | 21,216 53 | 20,502 26 | 714 27 | |
| 1881-82.. | 32 | 28,461 07 | 7,407 88 | 21,052 19 | 13,099 55 | 7,953 64 | |
| 1882-83.. | 32 | 31,199 77 | 8,085 88 | 24,113 89 | 23,103 93 | 1,009 96 | |
| 1883-84.. | 32 | 30,428 39 | 7,409 46 | 23,018 93 | 22,140 86 | 878 07 | |
| 1884-85.. | 32 | 32,246 30 | 7,794 95 | 24,451 35 | 18,751 96 | 5,699 39 | |
| 1885-86.. | 32 | 31,185 63 | 7,527 52 | 23,658 11 | 19,229 49 | 4,428 62 | |
| 1886-87.. | 32 | 33,564 58 | 8,237 00 | 25,327 58 | 26,042 33 | | 714 75 |
| 1887-88.. | 32 | 32,242 85 | 6,689 30 | 24,553 55 | 24,040 33 | 513 22 | |
| 1888-89.. | 32 | 37,313 43 | 8,941 32 | 28,372 11 | 20,856 50 | 7,515 61 | |
| 1889-90.. | 32 | 39,544 19 | 9,381 73 | 30,162 46 | 18,982 82 | 11,179 64 | |
| 1890-91.. | 32 | 39,519 56 | 9,284 48 | 33,508 35 | 28,931 71 | 1,303 42 | |
| 1891-92.. | 32 | 42,891 23 | 9,382 38 | 30,235 13 | 19,514 37 | 13,994 48 | |
| 1892-93.. | 32 | 43,901 28 | 9,585 17 | 34,316 11 | 16,889 95 | 17,426 16 | |
| 1893-94.. | 32 | 41,834 70 | 8,859 23 | 32,975 47 | 17,645 09 | 15,330 38 | |
| 1894-95.. | 32 | 50,703 84 | 11,626 20 | 39,077 64 | 14,640 07 | 24,437 57 | |
| 1895-96.. | 32 | 47,456 74 | 10,894 91 | 36,561 83 | 16,476 46 | 20,985 37 | |
| 1896-97.. | 32 | 54,208 81 | 13,605 58 | 40,603 23 | 10,821 04 | 29,782 19 | |
| 1897-98.. | 32 | 48,892 21 | 11,665 57 | 37,226 64 | 18,181 09 | 14,045 01 | |
| 1898-99.. | 32 | 56,314 51 | 13,840 48 | 42,474 04 | 12,873 06 | 29,600 94 | |
| 1899-1900 | 32 | 62,266 61 | 14,925 18 | 47,351 43 | 12,891 56 | 34,459 87 | |
| 1900-01.. | 32 | 62,523 20 | 15,261 31 | 47,261 89 | 16,862 66 | 30,399 23 | |
| 1901-02.. | 32 | 65,315 38 | 15,710 79 | 49,604 59 | 16,376 27 | 33,228 32 | |
| 1902-03.. | 32 | 56,417 38 | 13,856 57 | 42,560 81 | 17,843 19 | 24,717 62 | |
| 1903-04.. | 32 | 72,708 54 | 19,074 49 | 53,634 05 | 24,281 09 | 29,352 96 | |
| 1904-05.. | 32 | 66,798 46 | 16,759 79 | 50,038 67 | 26,863 16 | 23,175 51 | |
| 1905-06.. | 32 | 65,936 66 | 16,484 16 | 49,452 50 | 17,485 97 | 31,966 53 | |
| 1906-07.. | 32 | 61,597 30 | 16,156 78 | 45,440 52 | 15,425 32 | 30,015 20 | |
| 1907-08.. | 32 | 76,471 58 | 20,041 17 | 56,430 41 | 37,912 11 | 18,518 20 | |
| 1908-09.. | 32 | 75,781 80 | 19,750 47 | 56,031 33 | 36,234 55 | 19,796 78 | |
| 1909-10.. | 32 | 81,861 73 | 21,207 75 | 60,653 98 | 23,549 90 | 37,104 08 | |

1906-07 — nine months only.

PRINCE EDWARD ISLAND RAILWAY.

The following table shows the working expenses, the gross and net earnings, the tons of freight and number of persons carried each year since June 30, 1875, when the road was first opened for traffic:—

| Year. | Miles in operation. | Working expenses. | | Gross earnings. | | Loss. | | Tons of freight carried. | No. of passengers carried. |
|-----------------|---------------------------|----------------------|------|--------------------|------|---------|------|--------------------------------|----------------------------------|
| | | \$ | cts. | \$ | cts. | \$ | cts. | | |
| 1875-76 | 199 | 214,930 | 43 | 118,060 | 96 | 96,869 | 47 | 28,358 | 93,964 |
| 1876-77 | 199 | 228,595 | 25 | 130,664 | 92 | 97,930 | 33 | 41,039 | 93,478 |
| 1877-78 | 199 | 221,599 | 49 | 135,899 | 60 | 85,699 | 89 | 38,668 | 111,428 |
| 1878-79 | 199 | 223,313 | 12 | 125,855 | 99 | 97,457 | 21 | 38,923 | 105,046 |
| 1879-80 | 199 | 164,640 | 55 | 113,851 | 11 | 50,789 | 44 | 37,208 | 90,533 |
| 1880-81 | 199 | 203,122 | 88 | 131,131 | 43 | 71,991 | 45 | 45,336 | 102,937 |
| 1881-82 | 199 | 228,259 | 97 | 137,267 | 54 | 90,922 | 43 | 48,315 | 118,436 |
| 1882-83 | 199 | 252,808 | 41 | 146,170 | 42 | 106,637 | 99 | 51,920 | 117,162 |
| 1883-84 | 199 | 236,428 | 13 | 144,504 | 12 | 91,924 | 01 | 51,841 | 118,988 |
| 1884-85 | 211 | 211,207 | 01 | 158,588 | 06 | 52,618 | 95 | 57,346 | 130,423 |
| 1885-86 | 211 | 216,744 | 34 | 155,584 | 36 | 61,159 | 98 | 57,913 | 120,374 |
| 1886-87 | 211 | 204,237 | 37 | 155,303 | 37 | 48,934 | 00 | 63,589 | 103,067 |
| 1887-88 | 211 | 229,639 | 95 | 158,365 | 62 | 71,276 | 33 | 59,603 | 131,246 |
| 1888-89 | 211 | 247,559 | 44 | 171,369 | 56 | 76,189 | 89 | 55,682 | 152,780 |
| 1889-90 | 211 | 266,485 | 85 | 160,971 | 78 | 105,514 | 07 | 51,604 | 133,099 |
| 1890-91 | 211 | 257,990 | 08 | 174,258 | 05 | 83,732 | 03 | 59,511 | 145,508 |
| 1891-92 | 211 | 289,706 | 38 | 157,442 | 69 | 132,263 | 69 | 51,065 | 139,389 |
| 1892-93 | 211 | 226,422 | 17 | 162,690 | 42 | 63,731 | 75 | 56,718 | 132,111 |
| 1893-94 | 211 | 226,891 | 06 | 158,533 | 83 | 68,857 | 23 | 53,577 | 123,727 |
| 1894-95 | 211 | 232,105 | 19 | 149,654 | 71 | 83,250 | 41 | 48,325 | 125,089 |
| 1895-96 | 211 | 225,138 | 56 | 146,476 | 54 | 78,662 | 02 | 46,395 | 122,586 |
| 1896-97 | 211 | 240,489 | 90 | 153,443 | 13 | 87,046 | 77 | 52,151 | 121,498 |
| 1897-98 | 211 | 231,418 | 74 | 158,950 | 61 | 72,468 | 13 | 57,539 | 126,510 |
| 1898-99 | 211 | 218,053 | 01 | 165,021 | 03 | 53,040 | 98 | 57,968 | 129,667 |
| 1899-1900 | 211 | 220,931 | 81 | 174,738 | 73 | 46,193 | 08 | 62,227 | 147,471 |
| 1900-01 | 211 | 261,766 | 24 | 193,833 | 48 | 67,883 | 76 | 73,696 | 157,793 |
| 1901-02 | 210 | 270,159 | 97 | 197,999 | 97 | 72,160 | 00 | 75,3-1 | 184,748 |
| 1902-03 | 209 | 259,637 | 82 | 217,714 | 24 | 41,923 | 58 | 80,582 | 205,265 |
| 1903-04 | 209 | 335,695 | 44 | 234,390 | 03 | 101,305 | 41 | 86,286 | 224,517 |
| 1904-05 | 209 | 370,464 | 44 | 217,330 | 61 | 153,133 | 83 | 75,969 | 235,194 |
| 1905-06 | 261 | 294,253 | 16 | 257,270 | 57 | 36,982 | 59 | 87,162 | 256,092 |
| 1906-07 | 267 | 283,148 | 50 | 215,434 | 97 | 67,713 | 53 | 67,144 | 232,371 |
| 1907-08 | 267 | 399,947 | 79 | 304,579 | 83 | 95,367 | 96 | 97,250 | 317,828 |
| 1908-09 | 267-5 | 400,330 | 00 | 311,319 | 63 | 89,010 | 78 | 106,090 | 332,758 |
| 1909-10 | 267-5 | 427,283 | 73 | 319,074 | 74 | 108,208 | 99 | 105,741 | 351,038 |

1906-07—nine months only.

SESSIONAL PAPER No. 20

CANALS.

STATEMENT showing the total cost of the individual Dominion canal works and connecting waters, up to March 31, 1910.

Route from Montreal to Lake Superior.

| | Original Construction. | Enlargement of Canals. | Improvements to St. Lawrence River and Lakes. | Totals. |
|-------------------------------------|---------------------------|------------------------------|---|---------------|
| | \$ cts. | \$ cts. | \$ cts. | \$ cts. |
| Lachine Canal | 2,589,532 85 | 9,786,178 93 | | 12,375,711 78 |
| Lake St. Louis..... | | | 298,176 11 | 298,176 11 |
| Soulanges Canal | 7,126,135 61 | | | 7,126,135 61 |
| Beauharnois Canal..... | 1,636,690 26 | | | 1,636,690 26 |
| Lake St. Francis..... | | | 75,906 71 | 75,906 71 |
| Cornwall Canal..... | 1,945,624 73 | 5,289,142 41 | | 7,234,767 14 |
| Williamsburg Canal | 1,320,655 54 | 10,696 26 | | 1,331,351 80 |
| Farran's Point Canal..... | | 877,090 57 | | 877,090 57 |
| Rapide Plat Canal | | 2,158,242 00 | | 2,158,242 00 |
| Galops Canal..... | | 6,120,985 18 | | 6,120,985 18 |
| Galops Rapids..... | | | 1,072,227 11 | 1,072,227 11 |
| St. Lawrence River and Reaches..... | | | 711,238 93 | 711,238 93 |
| North Channel..... | | | 1,684,389 51 | 1,684,389 51 |
| Murray Canal..... | 1,248,946 71 | | | 1,248,946 71 |
| Welland Canal | 7,693,824 03 | 20,813,039 16 | | 28,506,863 19 |
| Sault. Ste. Marie Canal..... | 4,868,532 60 | | | 4,868,532 90 |
| | 28,429,942 33 | 45,055,374 51 | 3,841,938 37 | 77,327,255 21 |

Route from Lachine to Ottawa.

| | Original Construction. | Enlargement. | Total. |
|---------------------------------|---------------------------|--------------|--------------|
| | \$ cts. | \$ cts. | \$ cts. |
| Ste. Anne's Lock..... | 134,456 51 | 1,035,759 12 | 1,170,215 63 |
| Carillon and Grenville..... | 63,053 64 | 4,119,039 32 | 4,182,092 96 |
| Culbute Canal (superseded)..... | 382,776 46 | | 382,776 46 |
| Total.... | 580,286 61 | 5,154,798 44 | 5,735,085 05 |

Construction by the Imperial Government is not included. Records relating to same were kept in Ordnance Office, Montreal, and were destroyed by fire in 1852.

Route from Ottawa to Kingston.

| | Original Construction. | Enlargement. | Total. |
|-------------------|---------------------------|--------------|--------------|
| | \$ cts. | \$ cts. | \$ cts. |
| Rideau Canal..... | 4,085,889 21 | | 4,085,889 21 |
| Tay Canal..... | 489,599 23 | | 489,599 23 |
| Total..... | 4,575,488 44 | | 4,575,488 44 |

1 GEORGE V., A. 1911

Route from St. Johns, P.Q., to Sorel.

| | Original Construction. | Enlargement. | Total. |
|---------------------|---------------------------|--------------|------------|
| | \$ cts. | \$ cts. | \$ cts. |
| Chambly Canal..... | 637,056 76 | 43,944 33 | 681,001 09 |
| St. Ours Lock | 121,537 65 | ..... | 121,537 65 |
| Total..... | 758,594 41 | 43,944 33 | 802,538 74 |

Route from Lake Ontario to Georgian Bay.

| | Original Construction. | Enlargement. | Total. |
|-------------------|---------------------------|--------------|--------------|
| | \$ cts. | \$ cts. | \$ cts. |
| Trent Canal | 7,873,501 09 | ..... | 7,873,501 09 |
| Total..... | 7,873,501 09 | ..... | 7,873,501 09 |

Route from Atlantic Ocean to Bras d'Or Lakes.

| | Original Construction. | Enlargement. | Total. |
|------------------------------------|---------------------------|--------------|------------|
| | \$ cts. | \$ cts. | \$ cts. |
| St. Peter's Canal—Cape Breton..... | 248,762 84 | 399,784 30 | 648,547 14 |
| Total..... | 248,762 84 | 399,784 30 | 648,547 14 |

TABLE showing the dates of opening and closing of the canals for the season of 1909.

| Name of Canal. | Navigation Opened 1909. | Navigation Closed 1909. |
|-----------------------|-----------------------------------|----------------------------|
| Lachine | May 1 | December 3. |
| Soulanges | " | " 4. |
| Grenville..... | " | November 30. |
| Carillon..... | " | " 30. |
| Chambly.. | " | " 30. |
| Ste. Anne's..... | April 30. | " 30. |
| St. Ours..... | " 20. | " 30. |
| Cornwall. | May 3. | December 6. |
| Williamsburg... { | Farran's Point..... | " 8. |
| | Rapide Plat. | " 8. |
| | Galops..... | " 8. |
| Murray..... | April 12 | " 7. |
| Welland..... | " 15. | " 20. |
| Sault Ste. Marie..... | " 21. | " 16. |
| Rideau.. { | At Ottawa..... | November 30. |
| | At Kingston Mills..... | " 29. |
| Trent... { | Lake Simcoe to Fenelon Falls..... | " 1. |
| | Fenelon Falls to Lakefield.... | April 21..... |
| | Lakefield to Peterborough..... | May 10..... |
| | Peterborough to Healey Falls..... | April 17..... |
| St. Peter's..... | " 12. | January 11, 1910. |

SESSIONAL PAPER No. 20

COMPARATIVE STATEMENT of Tons of Freight which passed through the canals in seasons of 1908 and 1909.

| Name of Canal. | Season of 1908. | Season of 1909. | Number of trips of vessels. | |
|-----------------------------|-----------------------|-----------------------|--------------------------------|-----------------------|
| | | | Season of 1908. | Season of 1909. |
| | Tons. | Tons. | | |
| Welland Canal..... | 1,703,453 | 2,025,951 | 2,351 | 2,433 |
| St. Lawrence Canals..... | 2,009,102 | 2,410,629 | 8,025 | 9,271 |
| Chambly Canal..... | 503,276 | 752,117 | 3,594 | 4,725 |
| Ottawa River Canals..... | 258,527 | 336,939 | 1,882 | 2,181 |
| Rideau Canal..... | 89,640 | 91,774 | 7,981 | 2,236 |
| St. Peter's Canal..... | 72,015 | 79,850 | 1,380 | 1,439 |
| Trent Canal..... | 81,690 | 59,952 | 5,025 | 3,730 |
| Murray Canal..... | 25,901 | 102,291 | 998 | 957 |
| Sault Ste. Marie Canal..... | 12,759,216 | 27,861,245 | 5,293 | 6,331 |
| Total..... | 17,502,820 | 33,720,748 | 36,529 | 33,303 |

CANALS

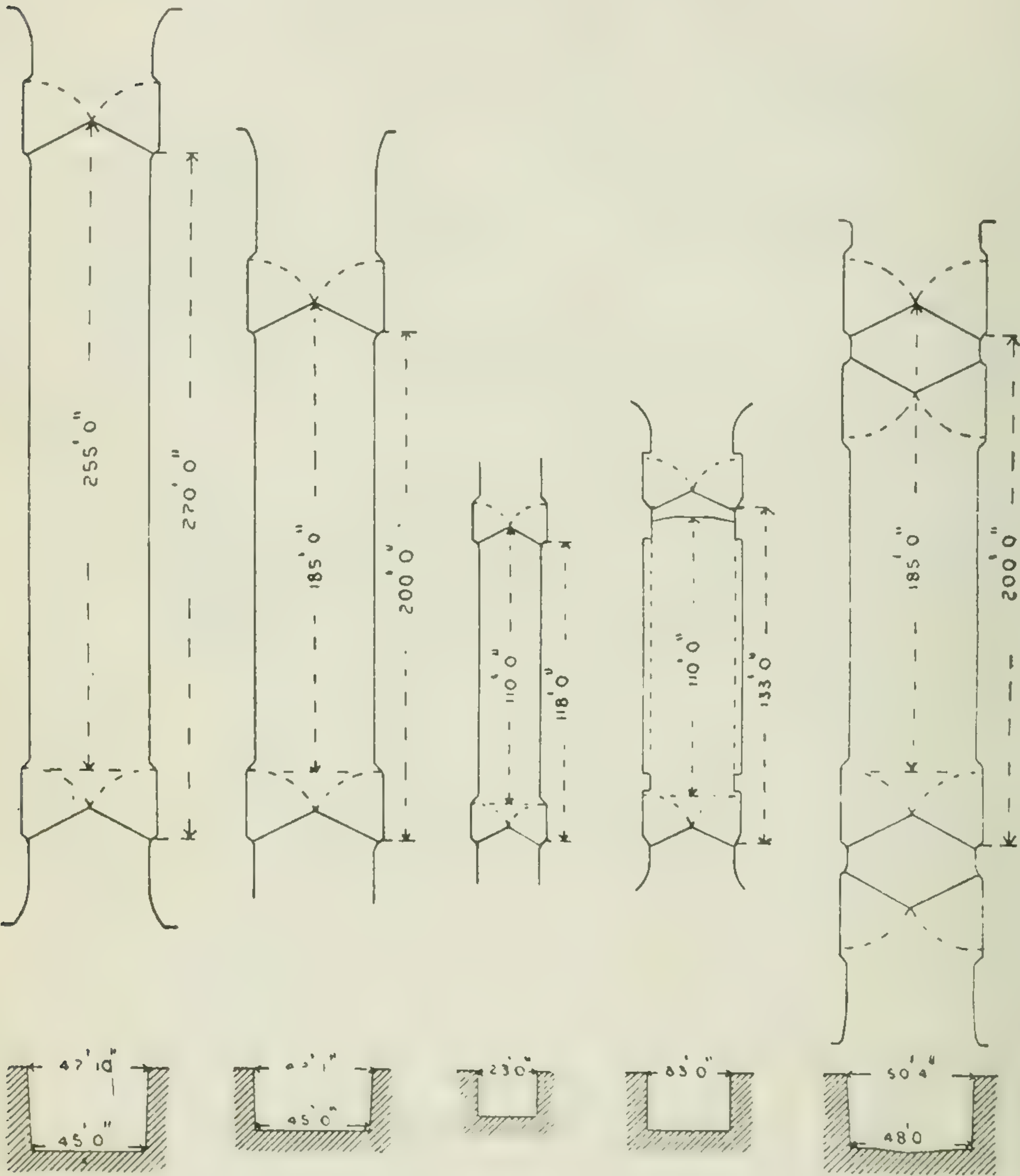
DIAGRAM SHOWING DIMENSIONS OF THE SMALLEST LOCK ON EACH
CANAL. LENGTHS AND LOCATIONS OF THE DOMINION
CANALS AND THE INTERMEDIATE WATERS

WITH

DIMENSIONS OF LOCKS.

1 GEORGE V., A. 1911

Plans and Sections showing Dimensions of the Smallest Lock on each



Lachine

St Anne,
St Ours,
Carillon,
& Grenville

Chambly

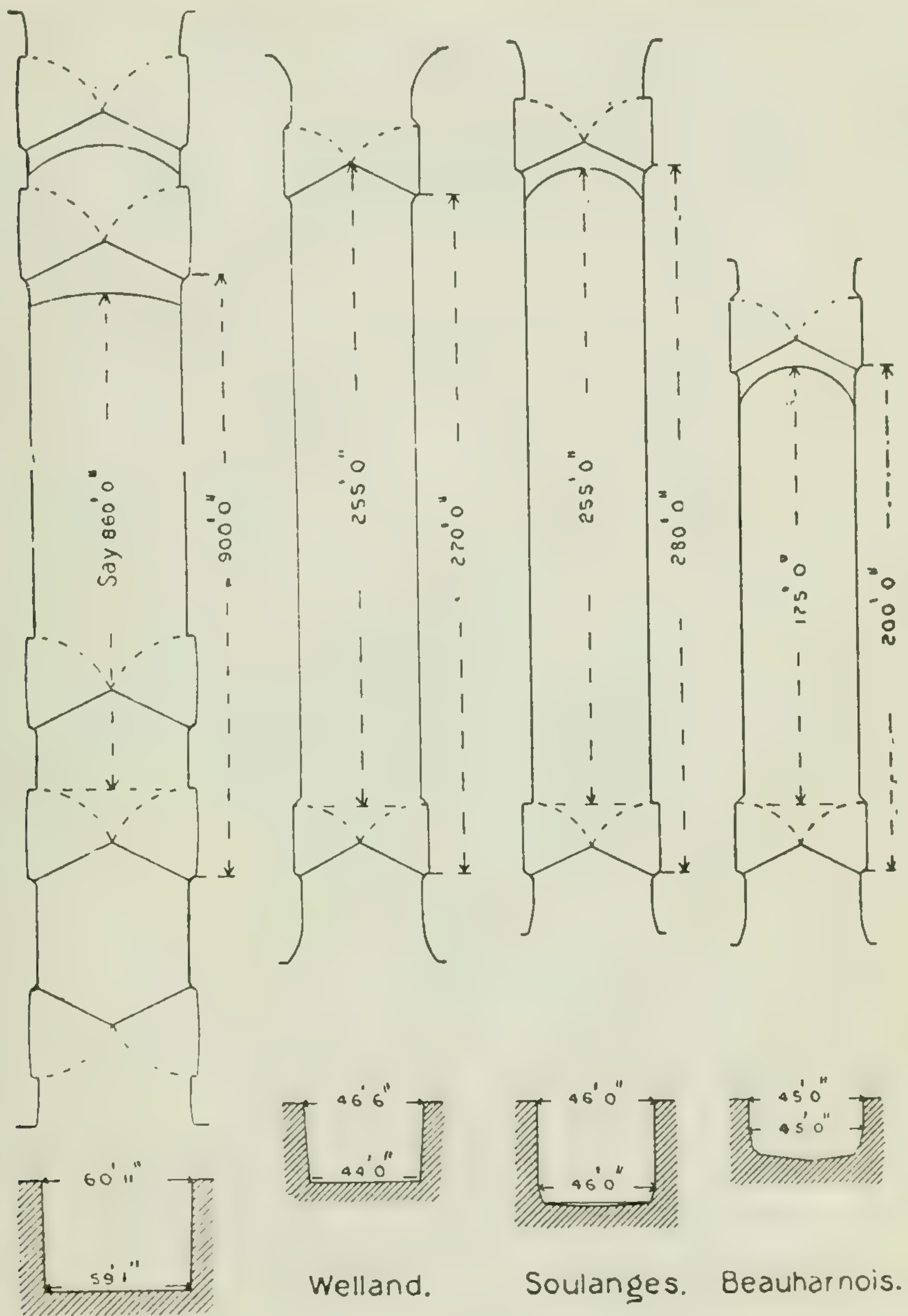
Rideau

St Peter's

There are no locks on the through route between Lake Superior and

SESSIONAL PAPER No. 20

of the Canadian Canal Systems except the Trent Canal, which is uncompleted.



Sault Ste Marie.

Welland.

Soulanges.

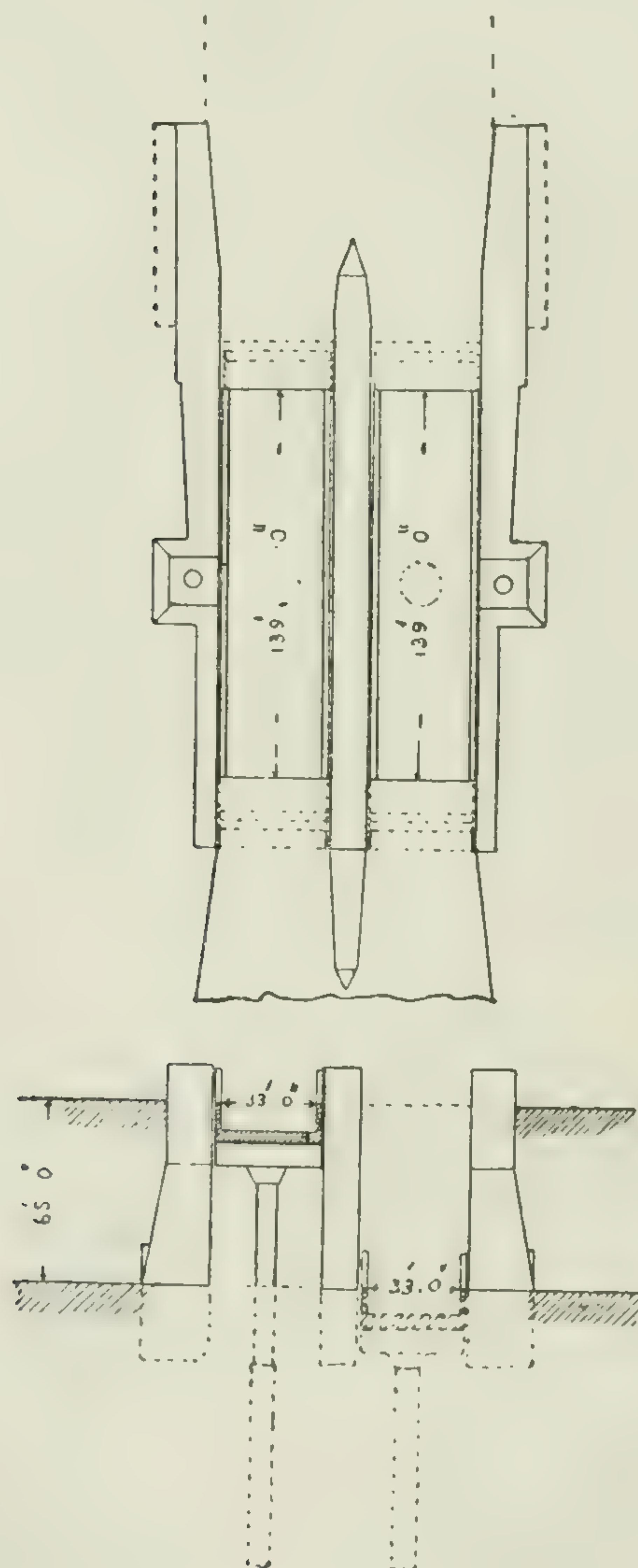
Beauharnois.

Montreal of less dimension than those of the Welland Canal Locks.

1 GEORGE V., A. 1911

TRENT CANAL

Hydraulic Lift-Lock at Peterborough
65 Feet Lift



CANALS

The following statements give in concise form the essential features of the government canal works and the intermediate water navigation:—

The canal systems of the Dominion, under government control in connection with lakes and navigable rivers are as follows:—

First.—The through route between Montreal and Port Arthur or Fort William on the west shore of Lake Superior (14 feet minimum depth of water.)

| | Statute Miles. |
|---|----------------|
| 1. Lachine Canal | 8½ |
| Lake St. Louis and River St. Lawrence.. . . . | 16 |
| 2. Soulanges Canal.. . . . | 14 |
| Lake St. Francis and River St. Lawrence.. . . . | 33 |
| 3. Cornwall Canal.. . . . | 11 |
| River St. Lawrence | 5 |
| 4. Farran's Point Canal.. . . . | 1¼ |
| River St. Lawrence.. . . . | 10 |
| 5. Rapide Plat Canal | 3¾ |
| River St. Lawrence.. . . . | 4 |
| 6. Galops Canal.. . . . | 7½ |
| River St. Lawrence and Lake Ontario.. . . . | 236 |
| 7. Welland Canal.. . . . | 26¾ |
| Lake Erie, Detroit River, Lake St. Clair, Lake Huron, &c. | 580 |
| 8. Sault Ste. Marie Canal.. . . . | 1¼ |
| Lake Superior to Port Arthur or to Fort William.. . . . | 273 |
| Total.. . . . | 1,230¼ |
| To Duluth.. . . . | 1,354 |
| Chicago.. . . . | 1,286 |

Second—Ottawa to Lake Champlain.

1. Grenville.
2. Carillon.
3. Ste. Anne's.
4. Chambly.
5. St. Ours Lock.

Third.—Ottawa to Kingston and Perth.

1. Rideau canal.

Fourth.—Lake Ontario at Trenton to Lake Huron.

1. Trent canal (not completed).

Fifth.—Atlantic Ocean to the Bras d'Or Lakes, Cape Breton.

1. St. Peter's Canal.

RIVER ST. LAWRENCE AND LAKES.

The River St. Lawrence, with the system of canals established on its course above Montreal, and the Lakes Ontario, Erie, St. Clair, Huron and Superior, with connecting canals, afford a course of water communication extending from the Straits of Belle Isle to Port Arthur, or Fort William on the west coast of Lake Superior, a distance of 2,233 statute miles. The distance to Duluth is 2,357 miles. The distance to Chicago, 2,289 miles.

1 GEORGE V., A. 1911

From the Straits of Belle Isle, at the mouth of the St. Lawrence, to Montreal, the distance is 1,003 statute miles. From Quebec to Montreal the distance is 160 miles. Owing to the shallowness of the waters on a portion of the river between these two places, particularly through Lake St. Peter, vessels drawing more than from 10 to twelve feet were formerly barred from passage for the greater part of the season of navigation. In 1826 the question of deepening the channel was first definitely mooted, but it was not until 1844 that any dredging operations were begun. In that year, the deepening of a new straight channel was commenced, but the scheme was abandoned in 1847. In 1851 the deepening of the present channel was begun. At that time the depth of the channel at low water was 10 feet 6 inches. By the year 1869 this depth had been increased to 20 feet, by 1882 to 25 feet, and by the close of 1888 the depth of 27½ feet, at low water, was attained for a distance of 108 miles from Montreal to a point within tidal influence. This work is now being continued by the Department of Marine and Fisheries. The channel has a depth of 30 feet at extreme low water, and a minimum width of 450 feet, extending to 600 feet at points of curvature. The channel is lighted and buoyed. A 35 foot deep channel was commenced in 1907.

Navigation, which is closed by ice during the winter months, opens about the end of April.

Montreal has by this work been placed at the head of ocean navigation, and here, the canal systems of the River St. Lawrence begin, overcoming the various rapids by which the river channel upwards is obstructed, and giving access through the St. Lawrence canals, the Welland canal, the great lakes and the Sault Ste. Marie canal, to the head of Lake Superior.

The difference in level between the point on the St. Lawrence, near Three Rivers, where the tidal influence ceases, and Lake Superior, is about 600 feet.

The Dominion canals, constructed between Montreal and Lake Superior, are the Lachine, Soulanges, Cornwall, Farran's Point, Rapide Plat, Galops, Murray, Welland and Sault Ste. Marie. Their aggregate length is 73 miles; total lockage (or height directly overcome by locks), 551 feet. The number of locks through which a vessel would pass in its passage from Montreal, at the head of ocean navigation, to the head of Lake Superior, is 48. The Soulanges canal takes the place of the Beauharnois canal, abandoned for navigation purposes.

Communication between Lakes Huron and Superior is obtained by means of the Canadian Sault Ste. Marie canal, and also by the St. Mary's Falls canals, situated on the United States side of the River St. Mary.

Improvements of the United States channels in St. Mary's river through Hay lake, east of the Sault Ste. Marie, have been carried on for several years past. The dredged areas now total 34 miles in length, with a minimum width of 300 feet, which is increased at angles and other critical points to 1,000 feet. The depth is 20 feet at the mean stage of water. In the year 1903 excavation was commenced to afford 21 feet at the lowest stage of water.

It is important to note that the enlargement of canals on the main route between Montreal and Lake Erie comprises locks of the following minimum dimensions: Length, 270 feet; width, 45 feet; depth of water on sills, 14 feet. The length of the vessels to be accommodated is limited to 255 feet. At Farran's, in the canal of that name, the lock is 800 feet long. A similar lock is built at Iroquois on the Galops canal, the object being to pass a full tow at one lockage.

LACHINE CANAL.

| | |
|--|---------------------|
| Length of canal. | 8½ statute miles |
| Number of locks. | 5 |
| Dimensions of locks | 270 feet by 45 feet |
| Total rise or lockage. | 45 feet |
| Depth of water on sills, at two locks. | 18 " |
| Depth of water on sills, at three locks. | 14 " |
| Average width of new canal. | 150 " |

SESSIONAL PAPER No. 20

The old lift locks, 200 feet by 45 feet, are still available, with 9 feet of water on mitre sills. The two lower north locks, however, have been lengthened to 270 feet, and have 16½ feet of water on the sills.

The canal consists of one channel, with two distinct systems of locks, the old and the enlarged. There are two lock entrances at each end.

The canal extends from the city of Montreal to the town of Lachine, overcoming the St. Louis rapids, the first of the series of rapids which bar the ascent of the River St. Lawrence. They are 986 miles distant from the Straits of Belle Isle.

SOULANGES CANAL.

| | |
|--|---------------------|
| Length of canal | 14 statute miles |
| Number of locks— | |
| Lift. | 4 |
| Guard. | 1 |
| Dimensions of locks. | 280 feet by 45 feet |
| Total rise or lockage. | 84 feet |
| Depth of water on sills. | 15 “ |
| Breadth of canal at bottom. | 100 “ |
| Breadth of canal at water surface. | 164 “ |

The canal extends from Cascade Point to Coteau Landing, overcoming the Cascades rapids, Cedar rapids and Coteau rapids.

From the head of the Lachine to the foot of the Soulanges the distance is sixteen miles.

CORNWALL CANAL.

| | |
|--|---------------------|
| Length of canal | 11 statute miles |
| Number of locks | 6 |
| Dimensions of locks. | 270 feet by 45 feet |
| Total rise or lockage | 48 feet |
| Depth of water on sills. | 14 “ |
| Breadth of canal at bottom | 100 “ |
| Breadth of canal at water surface. | 164 “ |

The old lift locks, 200 feet by 50 feet, are also available with nine feet of water on mitre sills.

From the head of the Soulanges to the foot of the Cornwall canal there is a stretch through Lake St. Francis 33 miles, which is navigable for vessels drawing fourteen feet.

The Cornwall canal extends past the Long Sault rapids from the town of Cornwall to Dickinson's Landing.

WILLIAMSBURG CANALS.

The Farran's Point, Rapide Plat and Galops canals are collectively known as the Williamsburg canals.

FARRAN'S POINT CANAL.

| | |
|--|---------------------|
| Length of canal.. | 1½ mile |
| Number of locks.. | 1 |
| New lock.. | 800 feet by 45 feet |
| Old lock | 200 " |
| Total rise or lockage.. | 3½ feet |
| Depth of water on sills of new lock.. | 14 " |
| Depth of water on sills of old lock | 9 " |
| Breadth of canal at bottom.. | 90 " |
| Breadth of canal at water surface | 154 " |

From the head of the Cornwall canal to the foot of Farran's Point canal, the distance on the River St. Lawrence is five miles. The latter canal enables vessels ascending the river to avoid Farran's Point rapid, passing the full tow at one lockage. Descending vessels run the rapids with ease and safety.

RAPIDE PLAT CANAL.

| | |
|--|---------------------|
| Length of canal.. | 3½ miles |
| Number of locks | 2 |
| Dimensions of locks.. | 270 feet by 45 feet |
| Total rise or lockage.. | 11½ feet |
| Depth of water on sills.. | 14 " |
| Breadth of canal at bottom | 80 " |
| Breadth of canal at water surface | 152 " |

The old lift-lock, 200 feet by 45, is also available, with nine feet of water on mitre sills.

From the head of Farran's Point canal to the foot of Rapide Plat canal, there is a navigable stretch of 10½ miles. The canal was formed to enable vessels ascending the river to pass the rapids at that place. Descending vessels run the rapids safely.

GALOPS CANAL.

| | |
|---|-------------|
| Length of canal | 7½ miles |
| Number of locks | 3 |
| Dimensions of locks, one of which is a guard-lock.. | 1-800 by 45 |
| | 1-270 by 45 |
| | 1-285 by 45 |
| Total rise or lockage.. | 15½ feet |
| Depth of water on sills.. | 14 " |
| Breadth of canal at bottom | 80 " |
| Breadth of canal at surface of water | 144 " |

From the head of Rapide Plat canal to Iroquois, at the foot of the Galops canal, the St. Lawrence is navigable 4½ miles. The canal enables vessels to overcome the rapids at Pointe aux Iroquois, Port Cardinal and the Galops.

MURRAY CANAL.

| | |
|--|----------|
| Length between eastern and western piers.. | 5½ miles |
| Breadth at bottom.. | 80 feet |
| Breadth at water surface | 120 " |
| Depth below lowest known lake level | 11 " |
| No locks. | |

SESSIONAL PAPER No. 20

This canal extends through the Isthmus of Murray, giving connection westward between the head waters of the Bay of Quinté and Lake Ontario, and thus enabling vessels to avoid the open lake navigation:

WELLAND CANAL.

Main line from Port Dalhousie, Lake Ontario, to Port Colborne, Lake Erie.

| | Old Line. | Enlarged or New Line. |
|---------------------------------------|---|-----------------------|
| Length of canal | 27½ miles. | 26¾ miles. |
| Pairs of guard-gates (formerly 3).... | .. | 1 |
| Number of locks. { | guard | 1 |
| | lift.. . . . | 25 |
| Dimensions. | <div> <div> <div>1 (tidal) 230 x 45</div> <div>1 lock 200 x 45</div> <div>1 lock 200 x 45</div> <div>24 locks 150 x 45</div> </div> <div>270 feet x 45 feet.</div> </div> | |
| Total rise or lockage.. . . . | 326¾ feet. | 326¾ feet. |
| Depth of water on sills.. . . . | 10¼ " | 14 " |

WELLAND RIVER BRANCHES.

Length of canal—

| | |
|---|-------------------|
| Port Robinson Cut to River Welland.. . . . | 2,622 feet. |
| From the canal at Welland to the river, via lock at Aqueduct.. . . . | 300 " |
| Chippewa Cut to River Niagara.. . . . | 1,020 " |
| Number of locks—one at Aqueduct and one at Port Robinson | 2 |
| Dimensions of locks | 150 by 26½ feet. |
| Total lockage from the canal at Welland down to River Welland.. . . . | 10 feet. |
| Depth of water on sills | 9 feet 10 inches. |

GRAND RIVER FEEDER.

| | |
|-----------------------------------|---|
| Length of canal.. . . . | 21 miles. |
| Number of locks.. . . . | 2 |
| Dimensions of locks.. . . . | <div> <div>1 of 150 by 26½ ft.</div> <div>1 of 200 by 45 ft.</div> </div> |
| Total rise or lockage.. . . . | 7 to 8 feet. |
| Depth of water on sills | 9 feet. |

PORT MAITLAND BRANCH.

| | |
|---------------------------------|----------------------|
| Length of canal.. . . . | 1¾ miles |
| Number of locks.. . . . | 1 |
| Dimensions of locks.. . . . | 185 feet by 45 feet. |
| Depth of water on sills.. . . . | 7½ feet. |
| Total rise or lockage.. . . . | 7 to 8 feet. |

The Welland canal has two entrances from Lake Ontario, at Port Dalhousie, one for the old, the other for the new canal.

From Port Dalhousie to Allanburg, 11¾ miles, there are two distinct lines of canal in operation, the old line and the enlarged or new line.

1 GEORGE V., A. 1911

From Allanburg to Port Colborne, a distance of 15 miles, there is only one channel, the old canal having been enlarged.

From the head of the Welland canal there is a deep water navigation through Lake Erie, the Detroit river, Lake St. Clair, the St. Clair river, Lake Huron and River St. Mary to the Sault canal, a distance of about 580 miles. From the Sault the distance through Lake Superior to Port Arthur is 274 miles, and to Duluth 397 miles.

SAULT STE. MARIE CANAL.

| | |
|---|--|
| Length of canal, between the extreme ends of the entrance piers.. | 11 ¹ / ₃₀ miles or 7,472 feet. |
| Number of locks.. | 1 |
| Dimensions of locks.. | 900 feet by 60 feet at water level; width at lock bottom, 59 feet. |
| Depth of water on sills (at lowest known water level).. | 19 feet 3 inches. |
| Total rise or lockage (mean).. | 19 feet. |
| Breadth of canal at bottom.. | 141 feet 8 inches. |
| Breadth at surface of water | 150 feet. |

This canal has been constructed through St. Mary's island, on the north side of the rapids of the River St. Mary, and, with that river, gives communication on Canadian territory between Lakes Huron and Superior.

MONTREAL, OTTAWA AND KINGSTON.

This route extends from the harbour of Montreal to the port of Kingston, passing through the Lachine canal, the navigation section of the lower River Ottawa, and the Ottawa canals, to the city of Ottawa; thence by the River Rideau and the Rideau canal to Kingston, on Lake Ontario—a total distance of 245½ miles.

After leaving the Lachine canal the works constructed to overcome difficulties of navigation are:—

OTTAWA RIVER CANALS.

The Ste. Anne's Lock. Carillon Canal. Grenville Canal.

RIDEAU CANAL.

The total lockage (not including that of the Lachine canal) is 509 feet (345 rise, 164 fall) and the number of locks is 55.

The following table exhibits the intermediate distances from Montreal harbour:—

| Sections of Navigation. | Interme- diate Distance. | Total Distance from Montreal. |
|--|--------------------------------|--|
| | Miles. | Miles. |
| The Lachine Canal. | 8½ | |
| From Lachine to Ste. Anne's Lock | 15 | 23½ |
| Ste. Anne's Lock and piers | ½ | 23 |
| Ste. Anne's Lock to Carillon Canal | 27 | 50 |
| The Carillon Canal. | ¾ | 51 |
| From Carillon to Grenville Canal. | 6½ | 57 |
| The Grenville Canal | 5½ | 63 |
| From the Grenville Canal to entrance of Rideau Navigation. | 56 | 119 |
| Rideau Navigation ending at Kingston. | 126½ | 245½ |

STE. ANNE'S LOCK.

| | New Lock. | Old Lock. |
|---------------------------------|---------------------|---------------------|
| Length of canal.. | $\frac{1}{8}$ mile. | $\frac{1}{8}$ mile. |
| Number of locks.. | 1 | 1 |
| Dimensions of locks.. | 200 x 45 feet. | 190 x 45 feet. |
| Total rise or lockage.. | 3 feet. | 3 feet. |
| Depth on sills.. | 9 " | 6 " |

This work, with guide piers above and below, surmounts the St. Anne's rapids between Ile Perrot and the head of the Island of Montreal, at the outlet of that portion of the River Ottawa which forms the Lake of Two Mountains, 23½ miles from Montreal harbour.

THE CARILLON CANAL.

| | |
|---|---------------------|
| Length of canal.. | $\frac{3}{4}$ mile. |
| Number of locks.. | 2 |
| Dimensions of locks.. | 200 x 45 feet. |
| Total rise or lockage.. | 16 feet. |
| Depth of water on sills | 9 " |
| Breadth of canal at bottom.. | 100 " |
| Breadth of canal at water surface.. | 110 " |

This canal overcomes the Carillon rapids.

From Ste. Anne's lock to the foot of the Carillon canal is a navigable stretch of 27 miles, through the Lake of Two Mountains and the River Ottawa.

By the construction of the Carillon dam across the River Ottawa the water at that point is raised 9 feet, enabling the river above to be used for navigation.

GRENVILLE CANAL.

| | |
|--|----------------|
| Length of canal.. | 5½ miles. |
| Number of locks | 5 |
| Dimensions of locks | 200 x 45 feet. |
| Total rise or lockage.. | 43¾ feet. |
| Depth of water on sills | 9 " |
| Breadth of canal at bottom.. | 40 to 50 feet. |
| Breadth of canal at surface of water.. | 50 to 80 feet. |

This canal, by which the Long Sault rapids are avoided, are about 56 miles below the city of Ottawa, up to which point the River Ottawa affords unimpeded navigation.

RIDEAU NAVIGATION.

The Rideau system connects the River Ottawa, at the city of Ottawa, with the eastern end of Lake Ontario, at Kingston.

| | |
|--|--|
| Length of navigation | 126½ miles. |
| Number of locks from Ottawa to Kingston.. . . . | { 33 ascending. 14 descending. |
| Total lockage 457½ | { 292¼ rise and 165¼ fall. } at high water. |
| Dimensions of locks.. | 134 x 33 feet. |
| Depth of water on sills.. | 5 feet. |
| Navigation depth through the several reaches | 5 " |
| Breadth of canal reaches at bottom.. | { 54 feet in rock. 60 feet in earth. |
| Breadth of canal at surface of water.. | 80 feet in earth. |

PERTH BRANCH.

| | |
|--|----------------------------------|
| Length of canal | 7 miles. |
| Number of locks | 2 |
| Dimensions of locks | 134 feet x 33 feet. |
| Total rise or lockage | 26 " |
| Depth of water on sills | 5 " 6 inches. |
| Length of dam | 200 " |
| Breadth of canal at surface of water | 80 " |
| Breadth of canal at bottom | { 40 " in rock. 60 " in clay. |

The Perth branch of the Rideau canal affords communication between Beveridge's bay, on Lake Rideau, and the town of Perth.

The summit level of the Rideau system is at upper Lake Rideau, but several of the descending reaches are also supplied by waters which have been made tributary to them. The following description gives the sources of supply:—

From the summit, the route towards Ottawa follows the Rideau river, and that towards Kingston follows the River Cataraqui. The supply of water for the canal is derived from the reserves given in detail below.

These may be divided into three systems, viz.:—

- 1. The summit level, supplied by the Wolf lake system.
- 3. The southwest descending level to Kingston, supplied by the Mud lake system, discharging into Lake Rideau.

The southwest descending level to Kingston, supplied by the Mud lake system, formerly known as the Devil lake system, discharging into Lake Opinicon.

Lake Opinicon receives the waters of Buck lake and Rock lake.

All these waters on the descending level, supplemented by those of Lake Loughboro', flow to Cranberry lake, which, discharging through Round Tail outlet, forms the River Cataraqui. The river, rendered navigable by dams at various points, affords a line of navigation to Kingston.

RICHELIEU AND LAKE CHAMPLAIN.

This system, commencing at Sorel, at the confluence of the Rivers St. Lawrence and Richelieu, 46 miles below Montreal, extends along the River Richelieu, through the St. Ours lock to the basin at Chambly; thence, by the Chambly canal, to St. Johns, and down the River Richelieu to Lake Champlain. The distance from Sorel to the boundary line is 81 miles.

At Whitehall, the southern end of Lake Champlain is entered, and connection is obtained with the River Hudson, by which the city of New York is directly reached.

The following table shows the distances between Sorel and New York:—

| Sections of Navigation. | Interme- diate Distance. | Total Distances. |
|---|--------------------------------|---------------------|
| | Miles. | Miles. |
| Sorel to St. Ours Lock | 14 | 14 |
| St. Ours Lock to Chambly Canal | 32 | 46 |
| Chambly Canal | 12 | 58 |
| Chambly Canal to boundary line | 23 | 81 |
| Boundary line to Champlain Canal | 111 | 192 |
| Champlain Canal to junction with Erie Canal | 66 | 258 |
| Erie Canal from junction to Albany | 7 | 265 |
| Albany to New York | 145 | 411 |

SESSIONAL PAPER No. 20

ST. OURS LOCK AND DAM.

| | |
|--|----------------------|
| Length.. | 1/8 mile. |
| Number of locks.. | 1 |
| Dimensions of lock.. | 200 feet by 45 feet. |
| Total rise or lockage.. | 5 feet. |
| Depth of water on sills.. | 7 " |
| Length of dam in western channel.. | 690 " |

At St. Ours, 14 miles from Sorel, the River Richelieu is divided by a small island into two channels. The St. Ours lock is in the eastern channel.

There is a navigable depth in the Richelieu of 7 feet between St. Ours lock and Chambly basin, a distance of 32 miles.

CHAMBLY CANAL.

| | |
|----------------------------|-----------|
| Length of canal.. | 12 miles. |
| Number of locks | 9 |

Dimensions of locks—

| | | |
|--|----------|-----------------------------------|
| Guard lock No. 1 at St. Johns | 122 feet | } From 22½ to 24 feet wide. |
| Lift lock No. 2 | 124 " | |
| Lift locks Nos. 3, 4, 5, 6 | 118 " | |
| Lift locks Nos. 7, 8, 9 combined.. | 125 " | |
| Total rise or lockage.. | 74 " | |
| Depth of water on sills.. | 7 " | |
| Breadth of canal at bottom.. | 36 " | |
| Breadth of canal at surface of water.. | 60 " | |

This canal succeeds the 32 miles of navigable water between St. Ours lock and Chambly basin. The canal overcomes the rapids between Chambly and St. Johns.

TRENT CANAL.

The term 'Trent canal' is applied to a series of water stretches, which do not, however, form a connected system of navigation, and which, in the present condition, are efficient only for local use. By various works this local use has been extended, and by others, now in progress and contemplation, this will become a through route between Lake Ontario and Lake Huron.

The series is composed of a chain of lakes and rivers, extending from Trenton, at the mouth of the River Trent, on the Bay of Quinté, Lake Ontario, to Lake Huron.

Many years ago the utilizing of these waters for the purpose of through water communication between Lake Huron and Lake Ontario was projected.

The course, as originally contemplated and modified, is as follows:—

Through the River Trent, Rice Lake, the River Otenabee and Lakes Clear, Stony, Lovesick, Deer, Buckhorn, Chemong, Pigeon, Sturgeon and Cameron to Lake Balsam, the summit water, about 165 miles from Trenton; from Lake Balsam by a canal and the River Talbot to Lake Simcoe. The route from Lake Simcoe to Georgian Bay, Lake Huron has not yet been determined.

The full execution of the scheme, commenced by the Imperial government in 1837, was deferred. By certain works, however, below specified, sections of these waters have been made practicable for navigation, and the whole scheme is now being carried out. A branch of the main route, extending from Sturgeon lake south, affords communication with the town of Lindsay, and, through Lake Scugog, to Port Perry, a distance of 180 miles from Trenton.

1 GEORGÉ V., A. 1911

The following table gives the distance of navigable and unnavigable portions:—

1. From Trenton, on Bay of Quinte, to Rice lake, at present being improved to give 8 feet 4 inches on lock sills, and 9 feet in reaches. 57 miles.
Of this distance, from Healy Falls to Hastings, a distance of about twenty miles is already navigable for 6 feet draught.
2. From lower end of Rice lake to Gamebridge on Lake Simcoe, navigable with a minimum depth of 6 feet.. 121 miles.
3. Across Lake Simcoe to Narrows near Orillia, navigable with minimum depth of 6 feet.. . . . 15 miles.
4. Narrows to Washago, on Lake Couchiching, navigable with minimum depth of 6 feet.. . . . 10 miles.

From the main line of the canal in Sturgeon lake near Sturgeon point, approximately 144 miles from Trenton, a branch runs through Lindsay to Port Perry via the Scugog river and lake, a distance of about 36 miles. South of Lindsay navigation is limited to about 4 feet draught. A new concrete lock and dam are now under construction at Lindsay.

The all-river route from Trenton, on the Bay of Quinté, to Rice lake was fully decided upon by the government during the session of 1907, and the work of construction was begun that fall. The improvement is carried out on the principle of damming the river at suitable points by means of dams, and connecting the pools thus created by means of locks. The locks on this division will be 175 feet long, 33 feet wide, with 8 feet 4 inches of water on the sills. In the reaches there will be a minimum depth of 9 feet of water. For the purpose of construction, this division of 57 miles has been divided into seven sections, five of which are under contract. Rice lake is 369 feet above low water level of Lake Ontario, which height will probably be overcome by 18 locks.

The works by which the Trent navigation has been improved to date comprise short canals with locks at Hastings; Peterborough; Peterborough to Lakefield 7 locks, one being a hydraulic lift; Young's Point, Burleigh Falls, Lovesick, Buckhorn, Bobcaygeon, Fenelon Falls, Rosedale, and six locks between Balsam and Simcoe lakes, one being a hydraulic lift.

Also dams at Healy Falls, Hastings, Peterborough, Peterborough to Lakefield, 6; Young's Point, Burleigh, Lovesick, Buckhorn, Bobcaygeon, Fenelon Falls, Rosedale and three between Balsam and Simcoe lakes.

Bridges have also been built at many of the locks and at other places.

At Healy Falls, about 37 miles from Trenton, a timber dam maintains six feet navigation to Hastings, a distance of about 14 miles.

At Hastings is a masonry lock and a timber dam which maintain navigation on the Trent river, Rice lake and the Otonabee river to Peterborough, a distance of about 36 miles.

At Peterborough, 87 miles from Trenton, is a masonry lock and a concrete dam which maintain navigation through Little lake to lock No. 6 of the Peterborough-Lakefield Division, a distance of about three-quarters of a mile.

From Peterborough to Lakefield, navigation is maintained on the Otonabee river by a series of concrete locks and timber dams as follows:—

Leaving Little lake through lock No. 6, in a distance of about half a mile, the hydraulic lift lock is reached, where there is a lift of 65 feet into a reach which extends to lock No. 5, about five miles from Peterborough, the last mile only of this reach being in the river; from here to Lakefield, locks 5, 4, 3, 2 and 1, with their respective dams, give navigation to Lakefield, about ten miles from Peterborough, or 97 from Trenton, and thence on five miles further to Young's Point.

SESSIONAL PAPER No. 20

At Young's Point, a masonry lock and timber dam maintains navigation through Clear and Stony lakes to Burleigh, a distance of about nine miles.

At Burleigh, a masonry lock of two lifts and timber dam maintains navigation through Lovesick lake, about two miles, to Lovesick.

At Lovesick, a masonry lock and timber dam maintains navigation through Deer bay for about five miles to Buckhorn.

At Buckhorn, a masonry lock and new concrete dam maintain navigation for about $16\frac{1}{2}$ miles through Buckhorn and Pigeon lakes to Bobcaygeon, 135 miles from Trenton.

At Bobcaygeon, a masonry lock and two dams, one being recently rebuilt of concrete and the other a timber one, maintain navigation through Sturgeon lake and Fenelon river, a distance of about $14\frac{1}{2}$ miles to Fenelon Falls.

At Fenelon Falls is a short canal, a masonry lock of two lifts and a timber dam which maintain navigation across Cameron lakes to Rosedale, a distance of about $3\frac{1}{2}$ miles, to a new concrete lock of the same dimensions as those of the Ontario-Rice Lake Division. This new lock will be placed in commission in the spring of 1910.

At Rosedale, the new concrete lock, and the dam which will be built in the summer of 1910 will maintain navigation on Balsam lake, the summit level of the canal, which extends from Rosedale to the hydraulic lock at Kirkfield, a distance of twelve miles; half of this distance is through a canal connecting Balsam lake with the lock, which is about 165 miles from Trenton.

At Rosedale, there is at present an old wooden lock and dam which maintain navigation on the summit level, the route being about a mile longer than via the new lock.

At the Kirkfield hydraulic lock is a drop from the summit level of 50.44 feet. From this point to Gamebridge on Lake Simcoe, 178 miles from Trenton, the route consists of canal and river reaches maintained by damming the Talbot river. There are five new concrete locks numbered 1, 2, 3, 4 and 5, with concrete dams at Nos. 1, 2 and 3.

From Cooks bay on Lake Simcoe, $28\frac{1}{2}$ miles from Gamebridge, on the main line, the Holland river is being improved for six feet navigation, so as to afford communication with Newmarket $13\frac{1}{2}$ miles from the lake, or 220 miles from Trenton.

The following is a list of locks now in use, with their dimensions, in order of location, from Hastings to Gamebridge on Lake Simcoe.

1 GEORGE V., A. 1911

| | | Length be- tween Hollow Quoins. | Width. | Depth on Sill. | Lift. |
|----|---|---------------------------------------|--------|-------------------|-------|
| | | Ft. | Ft. | Ft. | Ft. |
| 1 | Lock at Hastings..... | 134 | 33 | 6 | 9 |
| 1 | " at Peterborough..... | 134 | 33 | 6 | 9 |
| 1 | " No. 6, Peterborough—Lakefield Divlsion..... | 142 | 33 | 6 | 12 |
| 1 | " at Peterborough, hydraulic lift lock No. 1..... | 140 | 33 | 6 | 65 |
| 1 | " No. 5, Peterborough—Lakefield Division..... | 142 | 33 | 6 | 14 |
| 1 | " No. 4, " " "..... | 142 | 33 | 6 | 12 |
| 1 | " No. 3, " " "..... | 142 | 33 | 6 | 12 |
| 1 | " No. 2, " " "..... | 142 | 33 | 6 | 10 |
| 1 | " No. 1, " " "..... | 142 | 33 | 6 | 16 |
| 1 | " at Young's Point..... | 134 | 33 | 6 | 6 |
| 2 | " at Burleigh, each 11½ feet..... | 134 150 | 33 | 6 | 23 |
| | Upper Lower | | | | |
| 1 | " at Lovesick..... | 134 | 33 | 6 | 4 |
| 1 | " at Buckhorn..... | 134 | 33 | 6 | 9 |
| 1 | " at Bobcaygeon..... | 134 | 33 | 6 | 7 |
| 2 | " at Fenelon Falls, each 12 feet..... | 134 150 | 33 | 6 | 24 |
| | Upper Lower | | | | |
| 1 | " at Rosedale..... | 175 | 33 | 8 4 in. | 4 |
| 1 | " at Kirkfield, hydraulic lift lock No. 2..... | 140 | 33 | 6 | 50 41 |
| 1 | " No. 1, Simcoe—Balsam Lake Division..... | 142 | 33 | 6 | 21 |
| 1 | " No. 2, " " "..... | 142 | 33 | 6 | 14 |
| 1 | " No. 3, " " "..... | 142 | 33 | 6 | 14 |
| 1 | " No. 4, " " "..... | 142 | 33 | 6 | 14 |
| 1 | " No. 5, " " "..... | 142 | 33 | 6 | 11 |
| 24 | | | | | |
| 1 | " at Lindsay, Scugog Branch..... | 142 | 33 | 6 | 6 5 |

ST. PETER'S CANAL, CAPE BRETON.

- Length of canal About 2,400 feet.
- Breadth at water line 55 feet.
- Lock. 1 tidal lock, 4 pairs of gates.
- Dimensions. 200 feet by 48 feet.
- Depth of water on sills. 18 feet at lowest water.
- Depth through canal 19 feet.
- Extreme rise and fall of tide in St. Peters bay 4 "

This canal connects St. Peter's bay on the southern side of Cape Breton, Nova Scotia, with the Bras d'Or lakes. It crosses an isthmus half a mile in width, and gives access from the Atlantic.

PART IX

RAILWAY SUBSIDIES

RAILWAY SUBSIDIES

The following are the several Railway Subsidy Acts passed since and including the year 1906, being the only Acts in force at the close of the fiscal year 1909-10 (March 31, 1910).

For previous Subsidy Acts, see annual report of 1908-09.

1906

ACT, 6 EDWARD VII, CAP. 43, 1906.

(Assented to 13th July, 1906.)

1. The Governor in Council may grant a subsidy of \$3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any one case the number of miles hereinafter respectively stated) which shall not cost more on the average than \$15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway not exceeding the mileage hereinafter stated, which shall cost more on the average than \$15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of \$3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile:—

To the Manitoulin and North Shore Railway Company (or to the Canada Central Railway Company, with the consent of the Manitoulin and North Shore Railway Company, and subject to the approval of the Governor in Council), for the following lines of Railway:—

(a) From Little Current thence crossing the Canadian Pacific railway, at or near Stanley, and thence to Sudbury, not exceeding 64 miles.

(b) From a point on the said line of railway, between Little Current and Sudbury, westerly towards the Algoma Central and Hudson bay railway, not exceeding 100 miles; and

(c) From a point at or near Sudbury northerly, not exceeding 30 miles; the said subsidies being granted in lieu of the subsidies of 64 and 130 miles, granted by chapter 8 of 1900, section 2, item 6, as amended by section 5 of chapter 7 of 1901, and chapter 7 of 1901, and section 2, item 14, respectively.

To the Algoma Central and Hudson Bay Railway Company for a line of railway from Sault Ste. Marie to a point on the Canadian Pacific railway between White River and Dalton stations in the District of Algoma, not exceeding 200 miles, and for a line of railway from Michipicoten Harbour, Lake Superior, towards the main line of the Canadian Pacific railway not exceeding 25 miles; in lieu of the subsidies of 40, 50 and 135 miles granted by chapter 7 of 1899, section 2, item 23, chapter 8 of 1900, section 2, item 4 and chapter 7 of 1901, section 2, item 20, respectively.

To the Lotbinière and Megantic Railway Company to extend its railway southerly from a point at or near Lyster in Megantic county to or towards a point at or near Lime Ridge in the Township of Dudswell; in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 8, not exceeding 50 miles.

1 GEORGE V., A. 1911

- For a line of railway from Lake Neminingue to La Livre, in lieu of subsidy granted by chapter 57 of 1903, section 2, item 44, not exceeding 35 miles.
- For a line of railway from a point on the Intercolonial railway at or near Dartmouth, in the County of Halifax, to Guysborough, in the County of Guysborough, with branch lines to a point on the Intercolonial railway at or near New Glasgow, in the county of Pictou, and also to Country Harbour, in the county of Guysborough, not exceeding in the whole 236 miles in lieu of subsidies of 116 and 120 miles granted by chapter 57 of 1903, section 2, items 19 and 63 respectively.
- For a line of railway from Wellington to Union Bay, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 68, not exceeding 55 miles.
- For a line of railway from a point at or near Sharbot lake or Bathrust Station, in the province of Ontario, or between those points via Lanark village to Carleton Place, in lieu of the subsidy granted by chapter 7 of 1901, section 2, item 17, not exceeding 41 miles.
- For a line of railway from Cape Tourmente towards Murray Bay, in lieu of the subsidy granted by chapter 5 of 1892, not exceeding 20 miles.
- To the Atlantic, Quebec and Western Railway Company, for a line of railway from Gaspé to a point at or near Causapscaal on the Intercolonial railway and from that point to Edmundston, not exceeding 260 miles; and for a line of railway from Paspébiac to Gaspé as near the shore as practicable, not exceeding 102 miles; in lieu of the subsidies granted by chapter 57 of 1903, section 2, item 51.
- To the Nipigon Railway Company, for the following lines of railway:—
- (a) From a point at or near Nipigon Station on the line of the Canadian Pacific railway to Nipigon lake, not exceeding 30 miles.
 - (b) From a point on Nipigon bay of Lake Superior to a point on the west of Lake Helen on the line of the Nipigon railway, not exceeding $3\frac{1}{2}$ miles.
 - (c) From a point on the line of the Nipigon railway at or near the crossing of the Fraser river, to a point on Lake Jesse, by way of Cameron's Falls, not exceeding $1\frac{1}{2}$ miles.
 - (d) From a point on the North Shore of Lake Nipigon northerly, not exceeding 45 miles:
- The said subsidies to the said lines being granted in lieu of the subsidies granted by chapter 34 of 1904, section 2, item 3, not exceeding in the whole 80 miles.
- For a line of railway from Quebec towards Seven Islands, including branches to Murray Bay and Baie St. Paul, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 48, not exceeding 200 miles.
- For a line of railway from Roberval westward towards James bay, in lieu of the subsidies granted by chapter 57. of 1903, section 2, items 11 and 52, not exceeding 100 miles.
- To the Quebec Central Railway Company for an extension of its line of railway from St. Francis to St. George not exceeding 9 miles; and for a line of railway from Scott Junction to the Quebec bridge, not exceeding 23 miles; in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 46.
- To the Western Alberta Railway Company for a line of railway from a point on the United States boundary, west of range 21, northwesterly towards Anthracite, in the province of Alberta, in lieu of the subsidy granted by chapter 34 of 1904, section 2, item 11, not exceeding 50 miles.
- To the Shediac and Coast Railway Company for a line of railway from Shediac to Shemogue and towards Cape Tormentine in Westmoreland county, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 17, not exceeding 38 miles.
- For a line of railway from St. Constant in the county of Laprairie and Napierville, through St. Edouard, St. Cyprien and Lacolle to a point at or near the International boundary line on the Delaware and Hudson railway (Grand Trunk) in

SESSIONAL PAPER No. 20

- lieu of the 19 and 12 mile subsidies granted by chapter 7 of 1899, section 2, item 10 and chapter 4 of 1894 respectively, not exceeding 28 miles.
- To the Lake Superior, Long Lake and Albany Railway Company for a line of railway from Peninsula Harbour in a northerly direction, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 76, not exceeding 10 miles.
- For a line of railway from Owen Sound in the province of Ontario to Meaford, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 34, not exceeding 30 miles.
- To the Kingston, Smith's Falls and Ottawa Railway Company for a line of railway from Kingston to Ottawa, being a revote of the subsidy granted by chapter 4 of 1897, not exceeding 101 miles.
- To the Lotbinière and Megantic Railway Company, for a line of railway from a point on its line between Lyster and Lime Ridge, to a point at or near the bridge over the St. Lawrence at or near Quebec, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 45, not exceeding 30 miles.
- For a line of railway from a point on the Quebec and Lake St. John railway, near the River Jeannotte to La Tuque, on the St. Maurice river, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 57, not exceeding 35 miles.
- To the Halifax and South Western Railway Company, for a line of railway from a point at or near Halifax, to a point at or near Barrington Passage, (except that part east of Bridgewater which formerly formed part of the line of the Central railway, in lieu of the 68, 77 and 35 miles of subsidies granted by chapter 57 of 1903, section 2, item 23 (a) and (b), and item 75, respectively, not exceeding 185 miles.
- To the Bay of Quinté Railway Company, for a line of railway from a point at or near the village of Tweed, thence northwesterly to a point at or near the village of Bannockburn, in the county of Hastings, being a revote in part of the subsidy granted by chapter 7 of 1899, section 2, item 45, and in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 37, not exceeding in all 20 miles.
- For a line of railway from a point at or near Baptiste, easterly to a point at or near Renfrew, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 32, not exceeding 75 miles.
- For a line of railway from the Station of Lac Bouchette, or from a point one mile east of the said station, on the Quebec and Lake St. John Railway, to St. André, in lieu of subsidy granted by chapter 57 of 1903, section 2, item 47, not exceeding 13 miles.
- For a line of railway from Debert Station, on the Intercolonial railway, to Debert coal mine, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 20, not exceeding $4\frac{1}{2}$ miles.
- For a line of railway from a point at or near Toulon, to a point on the Icelandic river, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 27, not exceeding 35 miles.
- To the Ontario, Northern and Temagami Railway Company (formerly the Temagami Railway Company), for a line of railway from a point at or near Sturgeon Falls, in a northwesterly direction, to a point on the westerly shore of Lake Temagami, in the District of Nipissing, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 36, not exceeding 50 miles.
- To the Quebec and Lake St. John Railway Company, for a line of railway from Roberval to the Government wharf at Lake St. John, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 40, not exceeding one mile.
- For a line of railway from Truro northerly towards Brule, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 64, not exceeding 34 miles.
- To the Kootenay Central Railway Company, for a line of railway from Golden towards the International boundary line, via Windermere and Fort Steele, and

1 GEORGE V., A. 1911

crossing the Crow's Nest railway at or near Elko, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 6, not exceeding 186 miles.

To the Brockville, Westport and Sault Ste. Marie Railway Company, the balance remaining unpaid of the subsidy granted by chapter 3 of 1889, not exceeding \$3,200 per mile, and also the balance remaining unpaid of the subsidy granted by chapter 2 of 1890, which was regranted by chapter 5 of 1892; the whole not exceeding \$86,800, being a revote of the subsidy granted by chapter 4 of 1894, and that the said subsidy or so much thereof as has heretofore been agreed upon by the terms of an agreement filed in the Department of Railways and Canals between said Brockville, Westport and Sault Ste. Marie Railway Company and the creditors of said railway company, to be paid over to the said creditors or the legal representatives of said creditors as mentioned in said agreement.

For a line of railway from Jonquieres to La Baie des Ha Ha, in lieu of subsidy granted by chapter 57 of 1903, section 2, item 7, not exceeding 20 miles.

For a line of railway from Ste. Rose via the east side of Lake Ainslie to or towards Orangedale on the Intercolonial railway, not exceeding 34 miles; and for a line of railway from a point on the Intercolonial railway at or near Mines Road station to the wharf at Caribou Cove not exceeding four miles; in lieu of the subsidy granted by chapter 57 of 1903, section 2, items 18 and 62.

For a line of railway from a point at or near Wolfville on the Dominion Atlantic railway to the government Pier at the Basin of Minas, not exceeding one mile, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 25.

To the Great Northern railway of Canada for a line of railway in extension of its railway from a point at or near Arundel to a point in the municipality of the United Townships of Preston and Hartwell, not exceeding 30 miles; and for a line of railway connecting its Montford and Gatineau line with the main line at St. Jerome, not exceeding 22 miles; in lieu of the subsidies granted to the Montford and Gatineau Colonization Railway Company by items 6 and 41 of section 2 of chapter 57 of 1903.

To the Great Northern railway of Canada, for a line of railway from, at or near Garneau Junction to or towards the Quebec bridge, not exceeding 70 miles, in lieu of the subsidy granted by item 74 of section 2, of chapter 57 of 1903.

For a line of railway from a point at or near St. Agathe des Monts Station towards the township of Howard, in the county of Argenteuil, passing near Lakes St. Joseph and Ste. Marie, in a southerly direction, not exceeding 15 miles; and for a line of railway between a point in the parish of St. Andrews, in the county of Argenteuil, and a point in the parish of St. Laurent, in the county of Jacques Cartier, passing through the parishes of St. Placide, St. Eustache and St. Martin, not exceeding 38 miles; in lieu of the subsidies granted by chapter 34 of 1904, items 8 and 9 of section 2, not exceeding in the whole 53 miles.

To the Kettle River Valley Railway Company for a line of railway from Grand Forks to a point 50 miles up the North Fork of Kettle River, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 67, not exceeding 50 miles.

To the Ottawa, Northern and Western Railway for a line of railway from Aylmer to a point of junction with the Interprovincial bridge approach in the city of Hull (except that portion thereof beginning at a point of junction with the line of the Hull Electric railway in the city of Hull and terminating at a point on the main line of the Canadian Pacific railway at the east end of its Hull station yard) not exceeding nine miles, in lieu of the subsidy granted by item 12 of section 2 of chapter 7, of 1899, and by the first portion of item 13 of section 2 of chapter 57 of 1903.

To the Toronto, Lindsay and Pembroke Railway Company, for a line of railway from Golden lake to Bancroft, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 3, not exceeding 51 miles.

SESSIONAL PAPER No. 20

To the Interprovincial and James Bay Railway Company, for a line of railway from the Lake Temiskaming at the present terminus of the Canadian Pacific railway in a northerly direction, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 42, not exceeding 50 miles.

For a line of railway from Waltham station to Ferguson Point, in the county of Pontiac, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 43, not exceeding 20 miles.

To the Matane and Gaspé Railway Company, for a line of railway from a point at or near St. Octave, on the Intercolonial railway, to Matane, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 54, not exceeding 30 miles.

For a line of railway from the village of Haliburton, via the the village of Whitney, towards the town of Mattawa, Ontario, in lieu of the subsidies granted by chapter 7 of 1899, section 2, item 25, and chapter 8 of 1900, section 2, item 9, not exceeding 60 miles.

For a line of railway from Dawson to Stewart river, passing at or near Grand Forks, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 71, not exceeding 84 miles.

2. That unless the context otherwise requires, the expression 'cost' means the actual, necessary and reasonable cost, and shall include the amount expended upon any bridge up to and not exceeding \$25,000, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of equipping the railway, nor the cost of terminals, nor the cost of right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals, and upon the report of the Chief Engineer of the Department of Railways and Canals, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of the construction of such railway.

3. That the subsidies to be authorized towards the construction of any railway shall be payable out of the Consolidated Revenue Fund of Canada, and may, unless otherwise expressly provided herein, at the option of the Governor in Council, on the report of the Minister of Railways and Canals, be paid as follows:—

(a) upon the completion of the work subsidized; or

(b) by instalments, on the completion of each ten-mile section of the railway, in the proportion which the cost of such completed section bears to that of the whole work undertaken; or

(c) upon the progress estimates on the certificate of the Chief Engineer of the Department of Railways and Canals, that, in his opinion, having regard to the whole work undertaken and the aid granted, the progress made justifies the payment of a sum not less than thirty thousand dollars; or

(d) with respect to (b) and (c), part one way, part the other.

4. That the subsidies to be authorized to be granted to companies named shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as establish to the satisfaction of the Governor in Council their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August, 1906, and completed within a reasonable time, not to exceed four years from the said first day of August, to be fixed by the Governor in Council, and shall also be constructed according to descriptions, conditions and specifications approved by the Governor in Council on the report of the Minister of Railways and Canals, and specified in each case in a contract between the company and the said Minister, which

1 GEORGE V., A. 1911

contract the Minister, with the approval of the Governor in Council is hereby empowered to make. The location also of such subsidized lines shall be subject to the approval of the Governor in Council.

5. That the granting of such subsidies, and the receipt thereof by the respective companies, shall be subject to the condition that the Board of Railway Commissioners for Canada may at all times provide and secure to other companies such running powers, traffic arrangements and other rights, as will afford to all railways connecting with the railways so subsidized, reasonable and proper facilities in exercising such running powers, fair and reasonable traffic arrangements with connecting companies, and equal mileage rates between all such connecting railways; and the said Board shall have absolute control, at all times, over the rates and tolls to be levied and taken by any of the companies, or upon any of the railways so subsidized: Provided always that any decision of the said Board made under this section may be at any time varied, changed, or rescinded by the Governor in Council as he deems just and proper.

6. That every company so receiving a subsidy, its successors and assigns, and any person or company controlling or operating the railway or portion of railway so subsidized, shall each year furnish to the Government of Canada, transportation for men, supplies, materials and mails, over the portion of the lines in respect of which it has received such subsidy, and whenever required, shall furnish mail cars properly equipped for such mail service; and such transportation and service shall be performed at such rates as are agreed upon between the Minister of the Department of the Government for which such service is being performed, and the company performing it, and in case of disagreement, then at such rates as are approved by the Board of Railway Commissioners for Canada; and in or towards payment for such charges the Government of Canada shall be credited by the company with a sum equal to three per cent per annum on the amount of the subsidy so received by the company.

7. That as respects all railways for which subsidies are granted, the company at any time owning or operating any of the railways shall, when required, produce and exhibit to the Minister of Railways and Canals, or any person appointed by him, all books, accounts and vouchers, showing the cost of constructing the railway or bridge, the cost of operating it, and the earnings thereof.

8. That the Governor in Council may make it a condition of the grant of the subsidies herein provided, that the company shall lay its road with new steel rails, made in Canada, if they are procurable in Canada of suitable quality, upon terms as favourable as other rails can be obtained, of which the Minister of Railways and Canals shall be the judge.

9. That whenever a contract has been duly entered into with a company for the construction of any line of railway so subsidized, the Minister of Railways and Canals, at the request of the company, and upon the report of the Chief Engineer of the Department of Railways and Canals, and his certificate that he has made careful examination of the surveys, plans and profiles of the whole line so contracted for, and has duly considered the physical characteristics of the country to be traversed and the means of transport available for construction, naming the reasonable and probable cost of construction, may, with the authorization of the Governor in Council, enter into a supplementary agreement, fixing definitely the maximum amount of the subsidy to be paid, based upon the said certificate of the Chief Engineer, and providing that the company shall be entitled to be paid, as the minimum, the ordinary subsidy of \$3,200 per mile, together with sixty per cent of the difference between the amount so fixed and the said \$3,200 per mile, if any; and the balance, forty per cent, shall be paid only on completion of the whole work subsidized, and in so far as the actual cost, as finally determined by the Governor in Council upon the recommendation of the Minister of Railways and Canals and upon the report and certificate of the said Chief Engineer, entitles the company thereto; Provided always:—

SESSIONAL PAPER No. 20

(a) that the estimated cost, as certified, is not less on the average, than \$18,000 per mile for the whole mileage subsidized;

(b) that no payment shall be made except upon a certificate of the Chief Engineer that the work is done up to the standard specified in the company's contract;

(c) that in no case shall the subsidy exceed the sum of \$6,400 per mile.

1907

ACT 6-7 EDWARD VII., CHAP. 40.

(Assented to April 27, 1907.)

1. The Governor in Council may grant a subsidy of \$3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated) which shall not cost more on the average than \$15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway, not exceeding the mileage hereinafter stated, which shall cost more on the average than \$15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of \$3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile:—

1. To the Central Ontario Railway, for an extension of its railway from a point at or near Bancroft to a point on the Canada Atlantic railway at or near Whitney, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 4; not exceeding 40 miles.

2. For a line of railway from Woodstock to the International Boundary, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 15; not exceeding 26 miles.

3. For a line of railway from a point on the Canadian Pacific railway at or near Welsford or Westfield, or between the said two points, to Gagetown, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 16; not exceeding 30 miles.

4. For a line of railway from Liverpool to Milton, Nova Scotia, in lieu of part of the subsidy granted by chapter 57 of 1903, section 2, item 23 (*d*); not exceeding 7 miles.

5. For a line of railway from Milton to Caledonia, Nova Scotia, in lieu of part of the subsidy granted by chapter 57 of 1903, section 2, item 23 (*d*); not exceeding 22 miles.

6. For a line of railway from Cheticamp to a point on the line already built between Broad Cove and Point Tupper, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 24; not exceeding 37 miles.

7. For a line of railway from a point on the Dominion Atlantic railway to the Government pier or wharf at Canning, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 25; not exceeding 1 mile.

8. To the Nicola, Kamloops and Similkameen Coal and Railway Company, for a line of railway from a point at or near Spence's Bridge, on the Canadian Pacific railway, to Nicola lake, in lieu of the subsidy granted by chapter 57 of 1903 section 2 item 26; not exceeding 47 miles.

9. To the Edmonton, Yukon and Pacific Railway Company, for a line of railway from the town of Strathcona to Edmonton and thence westerly towards Yellow Head Pass, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 28, not exceeding 50 miles.

10. For a line of railway from Fredericton to Woodstock, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 29, not exceeding 59 miles.

1 GEORGE V., A. 1911

11. For a line of railway from Hawkesbury, Ontario, to South Indian, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 30; not exceeding 35 miles.

12. To the Tilsonburg, Lake Erie and Pacific Railway Company, for a line of railway from Woodstock northerly to a point on the Grand Trunk railway at Berlin, or from Ingersoll to Stratford, or to any point on the Grand Trunk railway between these places, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 31; not exceeding 35 miles.

13. To the Canadian Northern Ontario Railway Company, for a line of railway from Toronto, via the east side of Lake Simcoe, to a point at, near or beyond Sudbury, through Parry Sound, in lieu of the subsidy granted to the James Bay Railway Company by chapter 57 of 1903, section 2, item 39; not exceeding 265 miles.

14. For a branch line from a point at or near the intersection of the Canadian Pacific railway and the Canadian Northern Quebec railway (formerly the Great Northern railway) between St. Philippe d'Argenteuil and Lachute, thence in a northerly direction passing through the village of Brownsburg, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 49; not exceeding 4.2 miles.

15. To the Orford Mountain Railway Company, for the following lines of railway, namely:—from Bolton Line to Mansonville, 7.54 miles; from Mansonville to the International Boundary, 3.12 miles; from Windsor Mills to Brompton Falls, 8 miles; from Melbourne Road Crossing to Melbourne village, 3.50 miles; and from a point on its main line of railway to the south end of Bonella lake, 5 miles; in lieu of the subsidies granted by chapter 57 of 1903, section 2, item 50, but not exceeding in the whole 27 miles.

16. To the Canadian Northern Quebec Railway Company, for a line of railway from a point on its main line at or near L'Epiphanie, passing by way of the parish of St. Jacques de l'Achigan, to the village of Rawdon, in lieu of the subsidy granted to the Chateauguay and Northern Railway Company by chapter 57 of 1903, section 2, item 55; not exceeding 16 miles.

17. To the York and Carleton Railway Company, for a line of railway from its present terminus westerly, in the lieu of subsidy granted by chapter 57 of 1903, section 2, item 61; not exceeding 5 miles.

18. To the Midway and Vernon Railway Company, for a line of railway from Midway to Vernon, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 69; not exceeding 150 miles.

19. For a line of railway from a point at or near the north end of Lake Megantic, thence along the said lake to a point on the International Boundary at or near Rivière Morte, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 78; not exceeding 19 miles.

20. For a line of railway from Wellington to or towards Union bay by way of Alberni, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 6; not exceeding 55 miles.

21. For a line of railway from Ste. Rose (or from Chimney Corner Coal Mines to a point at or near Chimney Corner Cove), thence via the east side of Lake Ainslie to or towards a point on the Intercolonial railway at or near Orangedale, not exceeding 34 miles; and for a line of railway from a point on the Intercolonial railway between Orangedale and Point Tupper, to Caribou Cove, or Inhabitants bay or river, not exceeding 4 miles; in lieu of the subsidies granted by chapter 43 of 1906, section 1, item 34.

22. To the Klondike Mines Railway Company, for the following lines of railway, namely:—

(a) for a line of railway from Dawson to a point at or near Sulphur Spring, not exceeding 31 miles;

(b) for a line of railway from a point at or near Sulphur Spring to a point at or near the divide between Dominion and Flat creeks, not exceeding 45 miles; and

SESSIONAL PAPER No. 20

(c) for a line of railway from a point at or near the said divide to or towards the Stewart river, not exceeding 8 miles;

the whole in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 46.

23. For a line of railway from St. Peter's to Louisbourg, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 65; not exceeding 50 miles.

24. For a line of railway from Grandique Ferry to Arichat, Nova Scotia, being a revote of the subsidy granted by chapter 7 of 1901, section 2, item 15; not exceeding 8 miles.

25. For a line of railway from Connors, at the terminus of the Temiscouta railway, to a point on the boundary line between New Brunswick and Quebec at the foot of Beau lake, being a revote of part of the subsidy granted by chapter 7 of 1901, section 2, item 2; not exceeding 18 miles.

2. The Governor in Council may grant, towards the construction and completion of a railway bridge and approaches over the Nicolet river at Nicolet, in lieu of the subsidy granted by chapter 57 of 1903, section 3, item 1, a subsidy of \$15,000.

3. In this Act, unless the context otherwise requires, the expression 'cost' means the actual, necessary and reasonable cost, and shall include the amount expended upon any bridge, up to and not exceeding \$25,000, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of equipping the railway, not the cost of terminals, nor the cost of right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals, and upon the report of the Chief Engineer of the Department of Railways and Canals, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of construction of such railway.

4. The subsidies hereby authorized towards the construction of any railway or bridge shall be payable out of the Consolidated Revenue Fund of Canada, and may, unless otherwise expressly provided in this Act, at the option of the Governor in Council, on the report of the Minister of Railways and Canals, be paid as follows:—

(a) Upon the completion of the work subsidized; or

(b) By instalments, on the completion of each ten-mile section of the railway, in the proportion which the cost of such completed sections bears to that of the whole work undertaken; or

(c) Upon the progress estimates on the certificate of the Chief Engineer of the Department of Railways and Canals that, in his opinion, having regard to the whole work undertaken and the aid granted, the progress made justifies the payment of a sum not less than thirty thousand dollars; or

(d) With respect to (b) and (c), part one way, part the other.

5. The subsidies hereinbefore authorized to be granted to companies named shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as establish to the satisfaction of the Governor in Council their ability to construct and complete the said railways and bridge respectively; all the lines and the bridge for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August, 1907, and completed within a reasonable time, not to exceed four years from the said first day of August, to be fixed by the Governor in Council, and shall also be constructed according to descriptions, conditions and specifications approved by the Governor in Council on the report of the Minister of Railways and Canals, and specified in each case in a contract between the Company and the said Minister, which contract the Minister, with the approval of the Governor in Council, is hereby empowered to make. The location also of such subsidized lines and bridge shall be subject to the approval of the Governor in Council.

1 GEORGE V., A. 1911

6. The granting of such subsidies and the receipt thereof by the respective companies shall be subject to the condition that the Board of Railway Commissioners for Canada may at all times provide and secure to other companies such running powers, traffic arrangements and other rights as will afford to all railways connecting with the railways and bridge so subsidized reasonable and proper facilities in exercising such running powers, fair and reasonable traffic arrangements with connecting companies, and equal mileage rates between all such connecting railways; and the said Board shall have absolute control, at all times, over the rates and tolls to be levied and taken by any of the companies, or upon any of the railways and bridge hereby subsidized: **Provided** always that any decision of the said Board made under this section may be at any time varied, changed or rescinded by the Governor in Council, as he deems just and proper.

7. Every company receiving a subsidy under this Act, its successors and assigns, and any person or company controlling or operating the railway or portion of railway subsidized under this Act, shall each year furnish to the Government of Canada transportation for men, supplies, materials and mails over the portion of the lines in respect of which it has received such subsidy, and, whenever required, shall furnish mail cars properly equipped for such mail service; and such transportation and service shall be performed at such rates as are agreed upon between the Minister of the department of the Government for which such service is being performed, and the company performing it, and, in case of disagreement, then at such rates as are approved by the Board of Railway Commissioners for Canada; and in or towards payment for such charges the Government of Canada shall be credited by the company with a sum equal to three per cent per annum on the amount of subsidy received by the company under this Act.

8. As respects all railways and the bridge for which subsidies are granted by this Act, the company at any time owning or operating any of the railways or the bridge shall, when required, produce and exhibit to the Minister of Railways and Canals, or any person appointed by him, all books, accounts and vouchers showing the cost of constructing the railway or bridge, the cost of operating it, and the earnings thereof.

9. The Governor in Council may make it a condition of the grant of the subsidies herein provided that the company shall lay the railway with new steel rails and fastenings made in Canada and shall purchase all materials and supplies required for the construction of the railway and bridge, and the rolling stock for the first equipment of the railway, from Canadian producers, if such rails, fastenings, materials, supplies and equipment are procurable in Canada of suitable quality and upon terms as favourable as elsewhere, of which the Minister of Railways and Canals shall be the judge.

10. Whenever a contract has been duly entered into with a company for the construction of any line of railway hereby subsidized, the Minister of Railways and Canals, at the request of the company, and upon the report of the Chief Engineer of the Department of Railways and Canals, and his certificate that he has made careful examination of the surveys, plans and profile of the whole line so contracted for, and has duly considered the physical characteristics of the country to be traversed and the means of transport available for construction, naming the reasonable and probable cost of such construction, may, with the authorization of the Governor in Council, enter into a supplementary agreement, fixing definitely the maximum amount of the subsidy to be paid, based upon the said certificate of the Chief Engineer, and providing that the company shall be entitled to be paid, as the minimum, the ordinary subsidy of \$3,200 per mile, together with sixty per cent of the difference between the amount so fixed and the said \$3,200 per mile, if any; and the balance, forty per cent, shall be paid only on completion of the whole work subsidized, and in so far as the actual cost, as finally determined by the Governor in Council upon the recommendation of the Minister of Railways and Canals, and upon the report and certificate of the said Chief Engineer, entitles the company thereto: **Provided** always—

SESSIONAL PAPER No. 20

(a) that the estimated cost, as certified, is not less on the average than \$18,000 per mile for the whole mileage subsidized;

(b) that no payment shall be made except upon a certificate of the Chief Engineer that the work done is up to the standard specified in the company's contract;

(c) that in no case shall the subsidy exceed the sum of \$6,400 per mile.

1908

ACT 7-8 EDWARD VII., CAP. 63, 1908.

(Assented to 20th July, 1908.)

1. The Governor in Council may grant a subsidy of \$3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated) which shall not cost more on the average than \$15,000 per mile of the mileage subsidized, and towards the construction of each of the said lines of railway, not exceeding the mileage hereinafter stated, which shall cost more on the average than \$15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of \$3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile:—

To the Kettle River Valley Railway Company, for a line of railway from a point at or near Grand Forks to a point fifty miles up the North Fork and East or West Fork of the North Fork of Kettle river, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 39; not exceeding 50 miles.

For a line of railway from Owen Sound, in the province of Ontario, to Meaford, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 18; not exceeding 30 miles.

For a line of railway from Sharbot lake or Bathurst station, in the province of Ontario, or between these points, via Lanark village, to Carleton Place, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 7; not exceeding 41 miles.

To the Nipigon Railway Company, for the following lines of railway:—

(a) from a point at or near Nipigon Station on the line of the Canadian Pacific railway to Nipigon lake; not exceeding 30 miles;

(b) from a point on Nipigon bay of Lake Superior to a point on the west of Lake Helen on the line of the Nipigon railway; not exceeding 3½ miles;

(c) from a point on the line of the Nipigon railway at or near the crossing of the Fraser river to a point on Lake Jesse, by way of Cameron's Falls; not exceeding 1½ miles;

(d) from a point on the north shore of Lake Nipigon northerly; not exceeding 45 miles.

The said subsidies to the said lines being granted in lieu of the subsidies granted by chapter 43 of 1906, section 1, item 10; not exceeding in all 80 miles.

To the Manitoulin and North Shore Railway Company (or to the Canada Central Railway Company with the consent of the Manitoulin and North Shore Railway Company, and subject to the approval of the Governor in Council), for the following lines of railway:—

(a) from a point on the said line of railway, between Little Current and Sudbury, westerly towards the Algoma Cenral and Hudson Bay railway; not exceeding 100 miles;

1 GEORGE V., A. 1911

(b) from Little Current thence crossing the Canadian Pacific railway, at or near Stanley, and thence to Sudbury; not exceeding 64 miles.

(c) from a point at or near Sudbury, northerly, not exceeding 30 miles; the said subsidies being granted in lieu of the subsidies granted by chapter 43 of 1906, section 1, item 1; not exceeding in all 194 miles.

To the Ontario, Northern and Timagami Railway Company for a line of railway from a point at or near Sturgeon Falls, in a northwesterly direction, to a point on the westerly shore of Lake Timagami, in the district of Nipissing, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 28; not exceeding 50 miles.

For a line of railway from a point at or near Baptiste, easterly to a point at or near Renfrew, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 24; not exceeding 75 miles.

To the Bracebridge and Trading Lake Railway Company, for a railway in Bracebridge, in Muskoka, to a point at or near Baysville, Ontario, in lieu of the subsidy granted by chapter 34 of 1901, section 2, item 1, for 15 miles; not exceeding 16 miles.

To the Quebec and Lake St. John Railway Company, for a line of railway from Roberval westward towards James Bay, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 12; not exceeding 100 miles.

To the Matane and Gaspé Railway Company, for a line of railway from a point at or near Ste. Flavie, on the Intercolonial railway, to Matane, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 44, for 30 miles; not exceeding 38 miles.

To the Canadian Northern Quebec Railway Company, for a line of railway from a point at or near Arundel to a point in the municipality of the united townships of Preston and Hartwell, not exceeding 30 miles; and for a line of railway connecting its Montfort and Gatineau line with the main line at St. Jerome, not exceeding 15.2 miles; in lieu of the subsidies granted to the Great Northern railway of Canada by chapter 43 of 1906, section 1, item 36, not exceeding in all 45.2 miles.

To the Canadian Northern Quebec Railway Company, for a line of railway from, or from near, Garneau Junction to Quebec, with a branch to or towards the Quebec bridge, in lieu of the subsidy granted to the Great Northern railway of Canada by chapter 43 of 1906, section 1, item 37, for 70 miles; not exceeding 83 miles.

To the Atlantic, Quebec and Western Railway Company, for a line of railway from a point at or near Causapascal, on the Intercolonial railway, to Edmundston, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 9, for a line between the points above mentioned; not exceeding 160 miles.

For a line of railway from Yamaska to a point in the County of Lotbinière, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 12, not exceeding 70 miles; and for a line of railway from Mount Johnson to St. Gregoire Station, in lieu of the subsidy granted to the United Counties Railway Company by chapter 7 of 1899, section 2, item 16, for one mile, not exceeding $1\frac{1}{2}$ miles; and not exceeding in all $71\frac{1}{2}$ miles.

To the International Railway Company of New Brunswick for a line of railway from the western end of the twenty miles of its railway, as already constructed from Campbellton, to a point on the St. John river between Grand Falls and Edmundston, in lieu of the subsidies granted by chapter 57 of 1903, section 2, items 14 and 59 respectively; not exceeding 90 miles.

For a line of railway from Brazil lake, on the Dominion Atlantic railway, to Kemptville, Nova Scotia, in lieu of the subsidy granted by chapter 8 of 1900, section 2, item 30; not exceeding 11 miles.

To the Inverness Railway and Coal Company, for a line of railway from Cheticamp to a point on the line already built between Broad Cove and Point Tupper, in lieu

SESSIONAL PAPER No. 20

of the subsidy granted by chapter 57, of 1903, section 2, item 21, for 37 miles; not exceeding 37 miles.

To the Margaree Coal and Railway Company, for a line of railway from a point at or near Orangedale, on the Intercolonial railway, thence via the east side of Lake Ainslie and Ste. Rosa, to Chimney Corner Cove, not exceeding 46 miles; and from a point on the Intercolonial railway between Orangedale and Point Tupper to Caribou Cove on Inhabitant's bay or river, not exceeding 4 miles; in lieu of the subsidy granted by chapter 40 of 1907, section 1, item 21, for 38 miles; not exceeding in all 50 miles.

To the Lotbinière and Megantic Railway Company, for a line of railway to extend its railway southerly from a point at or near Lyster, in Megantic county, to or towards a point at or near Lime Ridge, in the township of Dudswell, not exceeding 50 miles; and for a line of railway from a point on its line in the township of Inverness, to a point at or near the bridge over the St. Lawrence at or near Quebec, not exceeding 30 miles; in lieu of the subsidies granted by chapter 43 of 1906, section 1, items 3 and 20, respectively; not exceeding in all 80 miles.

To the Cape Breton Railway Company, Limited, for a line of railway from Port Hawkesbury or Point Tupper, on the Strait of Canso, Nova Scotia, to St. Peter's, in lieu of the subsidy granted by chapter 7, of 1899, section 2, item 6, for 30 miles; not exceeding 31 miles.

For a line of railway from a point on the Intercolonial railway at or near Dartmouth, in the county of Halifax, to a point at or near Deans Settlement, in the county of Halifax, in lieu of the subsidy granted by chapter 43, of 1906, section 1, item 5; not exceeding 80 miles.

For a line of railway from a point at or near Deans Settlement, in the county of Halifax, to a point at or near Melrose, in the county of Guysborough, in lieu in part of the subsidy granted by chapter 43, of 1906, section 1, item 5; not exceeding 52 miles.

For a line of railway from a point at or near New Glasgow, in the county of Pictou, to a point at or near Melrose, in the county of Guysborough, and from the said point at or near Melrose to Guysborough, in the county of Guysborough, with branch line to Country Harbour in the county of Guysborough, in lieu in part of the subsidy granted by chapter 43, of 1906, section 1, item 5; not exceeding in all 116 miles.

To the Ha Ha Bay Railway Company, for a line of railway from a point at or near Jonquières village to Baie de Ha Ha via Laterrières village, in lieu of the subsidy granted by chapter 43, of 1906, section 1, item 33, for 20 miles; not exceeding 24 miles.

To the Quebec and New Brunswick Railway Company, for a line of railway from Chaudière Junction to a point at or near the International Boundary, in lieu of the subsidy granted by chapter 7 of 1901, section 2, item 2, for 45 miles; not exceeding 62 miles.

For a line of railway from a point at or near Ste. Agathe des Monts Station towards the township of Howard, in the county of Argenteuil, passing near Lake St. Joseph and St. Mary in a southerly direction, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 38; not exceeding 45 miles.

For a line of railway from Tusket Wedge to a point on the Halifax Southwestern railway at or near Riverdale Station; not exceeding 8 miles.

To the Halifax and Southwestern Railway Company, for a line of railway from Lunenburg to Bridgewater, via upper Lahave; not exceeding 12 miles.

To the Erie, London and Tilsonburg Railway Company, for a line of railway from Port Burwell to London; not exceeding 35 miles.

For a line of railway from a point at or near Centreville to Aylesford, or Kingston or Middleton, on the line of the Dominion Atlantic railway; not exceeding 35 miles.

1 GEORGE V., A. 1911

For a line of railway from a point on the Canadian Pacific railway at or near Plaster Rock to Riley Brook; not exceeding 28 miles.

To the North Shore Railway Company, Limited (formerly the Beersville Coal and Railway Company), for a line of railway extending its present line from Beersville to Brown's Landing, not exceeding 7 miles; and for a branch line of railway from its main line to Mount Carlyle, not exceeding $2\frac{1}{2}$ miles; not exceeding in all $9\frac{1}{2}$ miles.

To the York and Carleton Railway Company, for a line of railway from its present terminus to a point on the National Transcontinental railway; not exceeding 9 miles.

To the Vancouver and Lulu Island Railway Company, for a line of railway from Eburn, on its main line, to New Westminster; not exceeding 9.65 miles.

To the Esquimalt and Nanaimo Railway Company, for a line of railway from a point near French creek to the village of Sandwich, not exceeding 41 miles; and for a line of railway from the village of Sandwich to Campbell river, not exceeding 38 miles; not exceeding in all 79 miles.

For a line of railway from MacLeod, via Cardston, towards a point on the Intercolonial Boundary west of range 21; not exceeding 45 miles.

To the Southern Central Pacific Railway Company for a line of railway from a point at or near Cowley, in Alberta, to a point on Highwood river; not exceeding 50 miles.

For a line of railway from a point at or near the town of Red Deer to a point on the North Saskatchewan river at or near Rocky Mountain House; not exceeding 70 miles.

To the Canadian Pacific Railway Company, for a line of railway from Winnipeg Beach northerly to Gimli, not exceeding $9\frac{1}{2}$ miles; and for a line from Gimli to Riverton, not exceeding 25 miles; not exceeding in all $34\frac{1}{2}$ miles.

To the Canadian Pacific Railway Company, for a line of railway from Moose Jaw; in a northwesterly direction; not exceeding 123 miles.

To the Eastern Townships Railway Company, for a line of railway from the Intercolonial railway at St. Leonard's Junction to Dudswell; not exceeding 36 miles.

To the Quebec, Montreal and Southern Railway Company, for a line of railway from Noyan Junction to the international boundary, not exceeding 8 miles; and for a line of railway from St. Lambert to St. Constant, not exceeding 15 miles; not exceeding in all 23 miles.

To the Quebec and Lake St. John Railway Company, for the following lines of railway:—

(a) from Valcartier Station to St. Catherine; not exceeding 3.8 miles.

(b) from Valcartier Station towards Gosford; not exceeding $5\frac{1}{2}$ miles;

(c) from the end of the 35th mile of the branch to La Tuque, on the River St. Maurice, to La Tuque Falls; not exceeding 5 miles.

(d) from La Tuque Falls to the mouth of the River Croche, not exceeding 5 miles;

(e) from a point on La Tuque branch to the steamboat landing near La Tuque; not exceeding 1.6 miles;

not exceeding in all 20.9 miles.

To the Quebec and Lake St. John Railway Company, for a line of railway from Herbertville to St. Joseph d'Alma; not exceeding 10 miles.

To the St. Maurice Valley Railway Company, for a line of railway from Three Rivers to Grand Mere; not exceeding 28 miles.

For a line of railway from a point on the main line of the Great Northern railway at or near St. Jerome to Charlemagne (Bout de l'Île); not exceeding 22 miles.

To the North Eastern Railway Company, for a line of railway from a point east of Lake Temiskaming, at or near Villemarie, easterly; not exceeding 25 miles.

SESSIONAL PAPER No. 20

- To the Canadian Northern Quebec Railway Company, for a line of railway from Montreal to Hawkesbury; not exceeding 65 miles.
- For a line of railway from Montreal to a point on the National Transcontinental railway; not exceeding 200 miles.
- To the Quebec Central Railway Company, for an extension of its line of railway from St. George to or towards St. Justine; not exceeding 30 miles.
- To the Maritime Coal, Railway and Power Company, for a line of railway from Chignecto to a point on the Northumberland Straits, not exceeding 25 miles; and from Joggins Mines to a point on the Bay of Fundy, not exceeding 1 mile; not exceeding in all 26 miles.
- For a line of railway from St. Peters, in the County of Richmond, by the south shore of Bras d'Or lake to Sydney; not exceeding 60 miles.
- To the Nipissing Central Railway Company, for a line of railway from a point on the Temiskaming and Northern Ontario railway, at or near the town of New Liskeard, to a point in the township of Guigues, in the province of Quebec; not exceeding 13 miles.
- To the Vancouver Island and Eastern Railway Company, for a line of railway from a point on the Esquimalt and Nanaimo railway, near Campbell river, towards Fort George, on the line of the Grand Trunk Pacific railway; not exceeding 100 miles.
- To the Vancouver, Westminster and Yukon Railway Company, for a line of railway from Vancouver towards Fort George, on the line of the Grand Trunk Pacific railway; not exceeding 100 miles.
- For a line of railway around Death Rapid, British Columbia; not exceeding 4 miles.
- To the Pacific Northern and Omineca Railway Company, for a line of railway from Kitimat to the Telkwa river; not exceeding 110 miles.
- For a line of railway from Nicola to a point at or near Penticton; not exceeding 100 miles.
- For a line of railway from Carmi to Penticton; not exceeding 50 miles.
- To the St. Mary and Western Ontario Railway Company, for a line of railway from Woodstock to Exeter; not exceeding 45 miles.
- To the Algoma Central and Hudson Bay Railway Company, for a line of railway from a point on the Canadian Pacific railway northward towards the National Transcontinental railway; not exceeding 50 miles.
- To the Grand Trunk Pacific Railway Company, for branch lines of railway from the line of the National Transcontinental railway to Port Arthur and Fort William; not exceeding 220 miles.
- To the Lac Seul, Rat Portage and Keewatin Railway Company, for a line of railway from a point at or near Kenora to the line of the National Transcontinental railway; not exceeding 18 miles.
- To the Burk's Falls and French River Railway Company, for a line of railway from Burk's Falls to French river; not exceeding 85 miles.
- To the Thessalon and Northern Railway Company, for a line of railway from Thessalon, northerly; not exceeding 4 miles.
- To the Canadian Northern Ontario Railway Company, for a line of railway from Sudbury Junction to Hutton Mines; not exceeding 30 miles.
- To the Esquimalt and Nanaimo Railway Company, for a line of railway from Cowichan bay to Cowichan lake; not exceeding 24 miles.
- To the Canadian Northern Quebec Railway Company, for a line of railway from Hawkesbury to Ottawa; not exceeding 60 miles.
- For the following lines of railway:—
- (a) from Westfield to St. John, not exceeding 14 miles;
 - (b) from Gagetown to Fredericton, not exceeding 40 miles;
 - (c) from a point between Centreville and Woodstock to a point at or near Grand Falls, not exceeding 55 miles.

1 GEORGE V., A. 1911

To the Little Nation River Railway Company, for a line of railway from Papineauville on the Canadian Pacific railway towards Lake Nominigue; not exceeding 30 miles.

To the L'Avenir and Melbourne Railway Company, for a line of railway from Melbourne to Drummondville; not exceeding 28 miles.

To the Quebec and Lake St. John Railway Company, for a line of railway from Chicoutimi south or southeast; not exceeding 5 miles.

2. The Governor in Council may grant the subsidies hereinafter mentioned towards the construction and completion of the bridges also hereinafter mentioned, that is to say:—

Towards the construction and completion of a railway bridge and approaches over the Nicolet river at Nicolet, in lieu of the subsidy granted by chapter 40 of 1907, section 2, \$15,000.

To the Canadian Pacific Railway Company (lessees of the Calgary and Edmonton Railway Company), towards the construction and completion of a bridge over the Saskatchewan river connecting Strathcona and Edmonton, 15 per cent upon the amount expended thereon; not exceeding \$100,000.

To the Quebec, Montreal and Southern Railway Company, towards the construction and completion of the following railway bridges:—

(a) bridge across the Gentilly river, \$15,000;

(b) bridge across the Becancour river, \$30,000;

(c) bridge across the Richelieu river, \$30,000;

To the Atlantic, Quebec and Western Railway Company, towards the construction and completion of the 26 railway bridges on its line of railway from Paspebiac to Gaspé, payable upon the completion of the said line of railway between the said points, \$250,000.

To the Interprovincial Railway Bridge Company of New Brunswick, towards the construction and completion of a railway bridge over the Restigouche river from Campbellton to Mission Point, not exceeding \$160,000.

To the Vancouver, Westminster and Yukon Railway Company, towards the construction and completion of a railway across Burrard Inlet.

3. In this Act, unless the context otherwise requires, the expression 'cost' means the actual, necessary and reasonable cost, and shall include the amount expended upon any bridge, up to and not exceeding \$25,000, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of equipping the railway, nor the cost of terminals, nor the cost of right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals, and upon the report of the Chief Engineer of the Department of Railways and Canals, certifying that he has made or caused to be made an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of the construction of such railway.

4. The subsidies hereby authorized towards the construction of any railway or bridge shall be payable out of the Consolidated Revenue Fund of Canada, and may, unless otherwise expressly provided in this Act, at the option of the Governor in Council, on the report of the Minister of Railways and Canals, be paid as follows:—

(a) Upon the completion of the work subsidized; or

(b) By instalments, on the completion of each ten-mile section of the railway, in the proportion which the cost of such completed section bears to that of the whole work undertaken; or

(c) Upon the progress estimates on the certificate of the Chief Engineer of the Department of Railways and Canals that in his opinion, having regard to the whole

SESSIONAL PAPER No. 20

work undertaken and the aid granted, the progress made justifies the payment of a sum not less than thirty thousand dollars; or

(d) With respect to (b) and (c), part one way, part the other.

5. The subsidies hereinbefore authorized to be granted to companies named shall if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as establish to the satisfaction of the Governor in Council their ability to construct and complete the said railway and bridges respectively; all the lines and the bridge for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August, 1908, and completed within a reasonable time, not to exceed four years from the said first day of August, to be fixed by the Governor in Council, and shall also be constructed according to descriptions, conditions and specifications approved by the Governor in Council on the report of the Minister of Railways and Canals, and specified in each case in a contract between the Company and the said Minister, which contract the Minister, with the approval of the Governor in Council, is hereby empowered to make. The location also of such subsidized lines and bridges shall be subject to the approval of the Governor in Council.

6. The granting of such subsidies and the receipt thereof by the respective companies shall be subject to the condition that the Board of Railway Commissioners for Canada may at all times provide and secure to other companies such running powers, traffic arrangements and other rights as will afford to all railways connecting with the railway and bridges so subsidized reasonable and proper facilities in exercising such running power, fair and reasonable traffic arrangements with connecting companies, and equal mileage rates between all such connecting railways; and the said Board shall have absolute control, at all times, over the rates and tolls to be levied and taken by any of the companies, or upon any of the railways and bridges hereby subsidized; Provided always that any decision of the said Board made under this section may be at any time varied, changed or rescinded by the Governor in Council, as he deems just and proper.

7. Every company receiving a subsidy under this Act, its successors and assigns, and any person or company controlling or operating the railway or portion of railway subsidized under this Act, shall each year furnish to the Government of Canada transportation of men, supplies, materials and mails over the portion of the lines in respect of which it has received such subsidy, and, whenever required, shall furnish mail cars properly equipped for such mail service; and such transportation and service shall be performed at such rates as are agreed upon between the Minister of the department of the Government for which such service is being performed, and the company performing it, and, in case of disagreement, then at such rates as are approved by the Board of Railway Commissioners for Canada; and in or towards payment of such charges the Government of Canada shall be credited by the company with a sum equal to three per cent per annum on the amount of the subsidy received by the company under this Act.

8. As respects all railways and bridges for which subsidies are granted by this Act, the company at any time owning or operating any of the railways or bridges shall, when required, produce and exhibit to the Minister of Railways and Canals, or any person appointed by him, all books, accounts and vouchers showing the cost of constructing the railway or bridge, the cost of operating it, and the earnings thereof.

9. The Governor in Council may make it a condition of the grant of the subsidies herein provide that the company shall lay the railway with new steel rails and fastenings made in Canada and shall purchase all materials and supplies required for the construction of the railways and bridges, and the rolling stock for the first equipment of the railway, from Canadian producers, if such rails, fastenings, materials, supplies and equipment are procurable in Canada of suitable quality and upon terms as favourable as elsewhere, of which the Minister of Railways and Canals shall be the judge.

1 GEORGE V., A. 1911

10. Whenever a contract has been duly entered into with a company for the construction of any line of railway hereby subsidized, the Minister of Railways and Canals, at the request of the Company, and upon the report of the Chief Engineer of the Department of Railways and Canals, and his certificate that he has made careful examination of the surveys, plans and profile of the whole line so contracted for, and has duly considered the physical characteristics of the country to be traversed and the means of construction, may, with the authorization of the Governor in Council, enter into a supplementary agreement, fixing definitely the maximum amount of the subsidy to be paid, based upon the said certificate of the Chief Engineer, and providing that the company shall be credited to be paid, as the minimum, the ordinary subsidy of \$3,200 per mile, together with sixty per cent of the difference between the amount so fixed and the said \$3,200 per mile, if any; and the balance, forty per cent, shall be paid only on completion of the whole work subsidized, and in so far as the actual cost, as finally determined by the Governor in Council upon the recommendation of the Minister of Railways and Canals, and upon the report and certificate of the said Chief Engineer, entitles the company thereto: **Provided always—**

(a) that the estimated cost, as certified, is not less on the average than \$15,000 per mile for the whole mileage subsidized;

(b) that no payment shall be made except upon a certificate of the Chief Engineer that the work done is up to the standard specified in the company's contract;

(c) that in no cases shall the subsidy exceed the sum of \$6,400 per mile.

1909

ACT 8-9 EDWARD VII., CHAP. 35.

(Assented to May 19, 1909).

1. Paragraph 6 of section 2 of chapter 63 of the statutes of 1908 is amended by adding at the end thereof the figures '\$200,000.'

1910

ACT 9-10 EDWARD VII., CHAP. 51.

(Assented to May 4 1910).

1. The Governor in Council may grant a subsidy of \$3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated) which shall not cost more on the average than \$15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway, not exceeding the mileage hereinafter stated, which shall cost more on the average than \$15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of \$3,200 per mile of fifty per cent on so much of the average cost of the mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile:—

1. For a line of railway from Tusket Wedge to a point on the Halifax and South-western railway at or near Riverdale station, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 27; not exceeding 8 miles.

SESSIONAL PAPER No. 20

2. To the Halifax and Southwestern Railway Company, for a line of railway from Lunenburg to Bridgewater via Upper La Have, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 28; not exceeding 12 miles.

3. To the Inverness Railway and Coal Company, for a line of railway from Cheticamp to a point on the line already built between Broad Cove and Point Tupper, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 17; not exceeding 37 miles.

4. To the Margaree Coal and Railway Company, for a line of railway from a point at or near Orangedale, on the Intercolonial railway, thence by the east side of Lake Ainslie and Ste. Rosa, to Chimney Corner Cove, not exceeding 46 miles; and for a line of railway from a point on the Intercolonial railway between Orangedale and Point Tupper to Caribou Cove on Inhabitants bay or river, not exceeding 4 miles; in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 18; not exceeding in all 50 miles.

5. For a line of railway from a point on the Dominion Atlantic railway to the Government pier or wharf at Canning, in lieu of the subsidy granted by chapter 40 of 1907, section 1, item 7, not exceeding 1 mile.

6. For a line of railway from Brazil lake, on the Dominion Atlantic railway to Kemptville, Nova Scotia, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 16; not exceeding 11 miles.

7. To the Dominion Atlantic Railway Company, for a line of railway from Centreville on the Dominion Atlantic railway, westerly to Weston, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 30; not exceeding 15 miles.

8. For a line of railway from a point on the Intercolonial railway at or near Dartmouth, in the county of Halifax, to a point at or near Deans Settlement, in the county of Halifax, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 21; not exceeding 80 miles.

9. For a line of railway from a point at or near Deans settlement, in the county of Halifax, to a point at or near Melrose, in the county of Guysborough, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 22; not exceeding 52 miles.

10. For a line of railway from a point at or near New Glasgow, in the county of Pictou, to a point at or near Melrose, in the county of Guysborough, and from the said point at or near Melrose to Guysborough, in the county of Guysborough, with a branch line to Country Harbour, in the county of Guysborough, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 23; not exceeding in all 116 miles.

11. To the International Railway Company of New Brunswick, for $3\frac{1}{2}$ miles of its railway, being the distance which the subsidy granted by chapter 63 of 1908, section 1, item 15, is short of covering.

12. For a line of railway from Grand Falls to St. John, New Brunswick, in lieu of the subsidies granted by chapter 40 of 1907, section 1, items 2, 3 and 10, respectively, and in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 69; not exceeding 228 miles.

13. For a line of railway from Connors, at the terminus of the Temiscouta railway to a point on the boundary line between New Brunswick and Quebec, at the foot of Beau lake, in lieu of the subsidy granted by chapter 40 of 1907, section 1, item 25; not exceeding 18 miles.

14. To the York and Carleton Railway Company, for a line of railway from its present terminus to a point on the National Transcontinental railway, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 33; not exceeding 9 miles.

15. For a line of railway from a point on the Canadian Pacific railway at or near Plaster Rock to Riley Rock, in lieu of the subsidy granted by chapter 63, of 1908, section 1, item 31; not exceeding 28 miles.

16. To the Atlantic, Quebec and Western Railway Company, for a line of railway from Paspebiac to Gaspé, as near the shore as practicable, in lieu of the subsidy granted

1 GEORGE V., A. 1911

by chapter 43 of 1906, section 1, item 9, for a line between the points above mentioned; not exceeding 102 miles.

17. To the Canadian Northern Quebec Railway Company, for a line of railway from a point at or near Arundel to a point in the municipality of the united townships of Preston and Hartwell, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 11, for a line of railway between the points above mentioned; not exceeding 30 miles.

18. For a line of railway from Roberval westward towards James bay, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 9; not exceeding 100 miles.

19. To the Quebec and Lake St. John Railway Company, for the following lines of railway:—

(a) from Valcartier station to St. Catherine, not exceeding 3.8 miles;

(b) from Valcartier station towards Gosford, not exceeding 5½ miles;

(c) from the end of the 35th mile of the branch to La Tuque, on the River St. Maurice, to La Tuque Falls, not exceeding 5 miles.

(d) from La Tuque Falls to the mouth of the River Croche, not exceeding 5 miles;

(e) from a point on the La Tuque branch to the steamboat landing near La Tuque, not exceeding 1.6 miles;

(f) from Herbertville to St. Joseph d'Alma; not exceeding 10 miles;

(g) from Chicoutimi south or southeast; not exceeding 5 miles;

the said subsidies being granted in lieu of the subsidies granted by chapter 63 of 1908, section 1, items 43, 44 and 72, respectively; not exceeding 35.9 miles.

20. To the Quebec and New Brunswick Railway Company, for a line of railway from Chaudière Junction to a point at or near the International Boundary, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 25, not exceeding 62 miles.

21. To the Eastern Townships Railway Company, for a line of railway from the Intercolonial railway at St. Leonard's Junction to Dudswell, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 41; not exceeding 36 miles.

22. To the L'Avenir and Melbourne Railway Company, for a line of railway from Melbourne to Drummondville, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 71; not exceeding 28 miles.

23. To the Lotbinière and Megantic Railway Company, for a line of railway to extend its railway southerly from a point at or near Lyster, in Megantic county, to or towards a point at or near Lime Ridge, in the township of Dudswell, not exceeding 50 miles; and for a line of railway from a point on its line in the township of Inverness, to a point at or near the bridge over the St. Lawrence river at or near Quebec; not exceeding 30 miles; in lieu of the subsidies granted by chapter 63 of 1908, section 1, item 19; not exceeding in all 80 miles.

24. For a line of railway from Joliette to or near Lake Manuan, in lieu of the subsidy granted by chapter 57 of 1903, section 2, item 9, not exceeding 60 miles.

25. For a line of railway from St. Joachim towards Seven Islands, including branches to Murray Bay and Baie St. Paul, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 11; not exceeding 170 miles.

26. For a line of railway from a point at or near Ste. Agathe des Monts station towards the township of Howard, in the county of Argenteuil, passing near Lake St. Joseph and St. Mary, in a southerly direction, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 26; not exceeding 15 miles.

27. To the Ha Ha Bay Railway Company, for a line of railway from a point at or near Janquières village to Baie des Ha Ha via Laterrière village, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 24; not exceeding 24 miles.

28. To the St. Mary's and Western Ontario Railway Company, for a line of railway from Embro to Exeter, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 60; not exceeding 36 miles.

SESSIONAL PAPER No. 20

29. To the Manitoulin and North Shore Railway Company for the following lines of railway:—

- (a) from a point on the said company's line of railway between Little Current and Sudbury, westerly towards Algoma Central and Hudson Bay railway; not exceeding 76 miles;
 - (b) from Little Current thence crossing the Canadian Pacific railway, at or near Stanley, and thence to Sudbury; not exceeding 88 miles;
 - (c) from a point at or near Sudbury, northerly, not exceeding 30 miles;
- the said subsidies being granted in lieu of the subsidies granted by chapter 63 of 1908, section 1, item 51; not exceeding in all 194 miles.

30. To the Algoma Central and Hudson Bay Railway Company for the following lines of railway:—

- (a) from Sault Ste. Marie to a point on the Canadian Pacific railway between White river and Dalton stations in the district of Algoma, not exceeding 200 miles;
 - (b) from Michipicoten Harbour, Lake Superior, towards the main line of the Canadian Pacific railway, not exceeding 25 miles;
 - (c) from a point on the Canadian Pacific railway, northerly, towards the National Transcontinental railway, not exceeding 50 miles;
- the said subsidies being granted in lieu of the subsidies granted by chapter 43 of 1906, section 1, item 2, and chapter 63 of 1908, section 1, item 61; not exceeding in all 275 miles.

31. To the Bracebridge and Trading Lake Railway Company, for a line of railway from Bracebridge, in Muskoka, to a point at or near Baysville, Ontario, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 8; not exceeding 16 miles.

32. To the Lac Seul, Rat Portage and Keewatin Railway Company, for a line of railway from a point at or near Kenora to the National Transcontinental railway, in lieu of subsidy granted by chapter 63 of 1908, section 1, item 63 for 18 miles; not exceeding 22 miles.

33. To the Canadian Northern Quebec Railway Company, for a line of railway from Montreal to Hawkesbury, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 48; not exceeding 65 miles.

34. To the Nipigon Railway Company for the following lines of railway:—

- (a) from a point at or near Nipigon station on the line of the Canadian Pacific railway to Nipigin lake; not exceeding 30 miles;
- (b) from a point on Nipigon bay of Lake Superior to a point on the west of Lake Helen on the line of the Nipigon railway; not exceeding $3\frac{1}{2}$ miles;
- (c) from a point on the line of the Nipigon railway at or near the crossing of the French river to a point on Lake Jesse, by way of Cameron's Falls; not exceeding $1\frac{1}{2}$ miles.
- (d) from a point on the north shore of Lake Nipigon, northerly; not exceeding 45 miles;

the said subsidies being granted in lieu of the subsidies granted by chapter 63 of 1908, section 1, item 4; not exceeding in all 80 miles.

35. To the Ontario, Northern and Timagami Railway Company, for a line of railway from a point at or near Sturgeon Falls, in a northwesterly direction, to a point on the westerly shore of Lake Timagami, in the district of Nipissing, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 6; not exceeding 50 miles.

36. For a line of railway from Sharbot lake or Bathurst station, in the province of Ontario, or between these points, via Lanark village, to Carleton Place, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 3; not exceeding 41 miles.

37. To the Erie, London and Tillsonburg Railway Company, for a line of railway from Port Burwell to London, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 29; not exceeding 35 miles.

1 GEORGE V., A. 1911

38. To the Toronto, Lindsay and Pembroke Railway Company, for a line of railway from Golden lake to Bancroft, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 41; not exceeding 51 miles.

39. To the Kingston, Smith's Falls and Ottawa Railway Company, for a line of railway from Kingston to Ottawa, in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 19; not exceeding 101 miles.

40. To the Pacific Northern and Omineca Railway Company, for a line of railway from Edmonton, northwesterly, to or towards the Peace river, in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 51; not exceeding 110 miles.

41. To the Southern Central Pacific Railway Company, for the following lines of railway:—

(a) from a point two miles west of Pincher station on the Crow's Nest Pass branch of the Canadian Pacific railway, northeasterly; not exceeding 10 miles;

(b) from a point two miles west of Pincher station on the Crow's Nest Pass branch of the Canadian Pacific railway, southwesterly; not exceeding 40 miles;

the said subsidies being granted in lieu of the subsidy granted by chapter 63 of 1908, section 1, item 37; not exceeding in all 50 miles.

42. To the Kettle River Valley Railway Company, for the following lines of railway:—

(a) from Midway to a junction near Merritt with the Nicola, Kamloops and Similkameen railway; not exceeding 250 miles;

(b) from a point on the company's line of railway near Coldwater river to a point on the Fraser river; not exceeding 50 miles;

the said subsidies being granted in lieu of the subsidies granted by chapter 40 of 1907, section 1, item 18, and chapter 63 of 1908, section 1, items 58 and 59, respectively; not exceeding in all 300 miles.

43. To the Kootenay Central Railway Company, for a line of railway from Golden towards the International Boundary via Windermere and Fort Steele, thence crossing the Crow's Nest Pass railway, at or near Elko; in lieu of the subsidy granted by chapter 43 of 1906, section 1, item 31; not exceeding 186 miles.

44. To the Esquimalt and Nanaimo Railway Company, for a line of railway from a point on its main line of railway, at or near Duncan's to Cowichan lake, in lieu of the subsidy granted by chapter 63, of 1908, section 1, item 67; not exceeding 24 miles.

45. For a line of railway from Montreal to a point on the National Transcontinental railway, in lieu of subsidy granted by chapter 63 of 1908, section 1, item 49; not exceeding 200 miles.

46. To the Little Nation River Railway Company, for a line of railway from Papineauville, on the Canadian Pacific railway, towards Lake Nominig, in lieu of subsidy granted by chapter 63 of 1908, section 1, item 70; not exceeding 30 miles.

2. In this Act, unless the context otherwise requires, the expression 'cost' means the actual, necessary and reasonable cost, and shall include the amount expended upon any bridge up to and not exceeding \$25,000, forming part of the line of railway subsidized not otherwise receiving any bonus, but shall not include the cost of equipping the railway nor the cost of terminals, nor the cost of right of way of the railway in any city or incorporated town; and such actual, necessary and reasonable cost shall be determined by the Governor in Council, upon the recommendation of the Minister of Railways and Canals, and upon the report of the chief engineer of the Department of Railways and Canals, certifying that he has made, or caused to be made, an inspection of the line of railway for which payment of subsidy is asked, and careful inquiry into the cost thereof, and that in his opinion the amount upon which the subsidy is claimed is reasonable, and does not exceed the true, actual and proper cost of construction of such railway.

SESSIONAL PAPER No. 20

3. The subsidies hereby authorized towards the construction of any railway shall be payable out of the Consolidated Revenue Fund of Canada, and may, unless otherwise expressly provided in this Act, at the option of the Governor in Council, on the report of the Minister of Railways and Canals, be paid as follows:—

(a) Upon completion of the work subsidized; or,

(b) By instalments, on the completion of each ten-mile section of the railway, in the proportion which the cost of such completed section bears to that of the whole work undertaken; or,

(c) Upon the progress estimates on the certificate of the chief engineer of the Department of Railways and Canals that in his opinion, having regard to the whole work undertaken and the aid granted, the progress made justifies the payment of a sum not less than thirty thousand dollars; or,

(d) With respect to (b) and (c), part one way, part the other.

4. The subsidies hereinbefore authorized to be granted to companies named shall, if granted by the Governor in Council, be granted to such companies respectively; the other subsidies may be granted to such companies as establish to the satisfaction of the Governor in Council their ability to construct and complete the said railways respectively; all the lines for the construction of which subsidies are granted, unless they are already commenced, shall be commenced within two years from the first day of August, 1910, and completed within a reasonable time, not to exceed four years from the said first day of August, to be fixed by the Governor in Council, and shall also be constructed according to descriptions, conditions and specifications approved by the Governor in Council on the report of the Minister of Railways and Canals, and specified in each case in a contract between the company and the said Minister, which contract the Minister, with the approval of the Governor in Council, is hereby empowered to make. The location also of such subsidized lines shall be subject to the approval of the Governor in Council.

5. The granting of such subsidies and the receipt thereof by the respective companies shall be subject to the condition that the Board of Railway Commissioners for Canada may at all times provide and secure to other companies such running powers, traffic arrangements and other rights as will afford to all railways connecting with the railway so subsidized reasonable and proper facilities in exercising such running power, fair and reasonable traffic arrangements with connecting companies, and equal mileage rates between all such connecting railways; and the said Board shall have absolute control, at all times, over the rates and tolls to be levied and taken by any of the companies, or upon any of the railways hereby subsidized: Provided always that any decision of the said Board made under this section may be at any time varied, changed or rescinded by the Governor in Council, as he deems just and proper.

6. Every company receiving a subsidy under this Act, its successors and assigns, and any person or company controlling or operating the railway or portion of railway subsidized under this Act, shall each year furnish to the Government of Canada transportation for men, supplies, materials and mails over the portion of the lines in respect of which it has received such subsidy, and, whenever required, shall furnish mail cars properly equipped for such mail service; and such transportation and service shall be performed at such rates as are agreed upon between the Minister of the department of the government for which such service is being performed and the company performing it, and, in case of disagreement, then at such rates as are approved by the Board of Railway Commissioners for Canada; and in or towards payment for such charges the Government of Canada shall be credited by the company with a sum equal to three per cent per annum on the amount of the subsidy received by the company under this Act.

7. As respects all railways for which subsidies are granted by this Act, the company at any time owning or operating any of the railways shall, when required, produce and exhibit to the Minister of Railways and Canals, or any person appointed

1 GEORGE V., A. 1911

by him, all books, accounts and vouchers showing the cost of constructing the railway, the cost of operating it, and the earnings thereof.

8. The Governor in Council may make it a condition of the grant of the subsidies herein provided that the company shall lay the railway with new steel rails and fastenings made in Canada and shall purchase all materials and supplies required for the construction of the railway, and the rolling stock for the first equipment of the railway, from Canadian producers, if such rails, fastenings, materials, supplies and equipment are procurable in Canada of suitable quality and upon terms as favourable as elsewhere, of which the Minister of Railways and Canals shall be the judge.

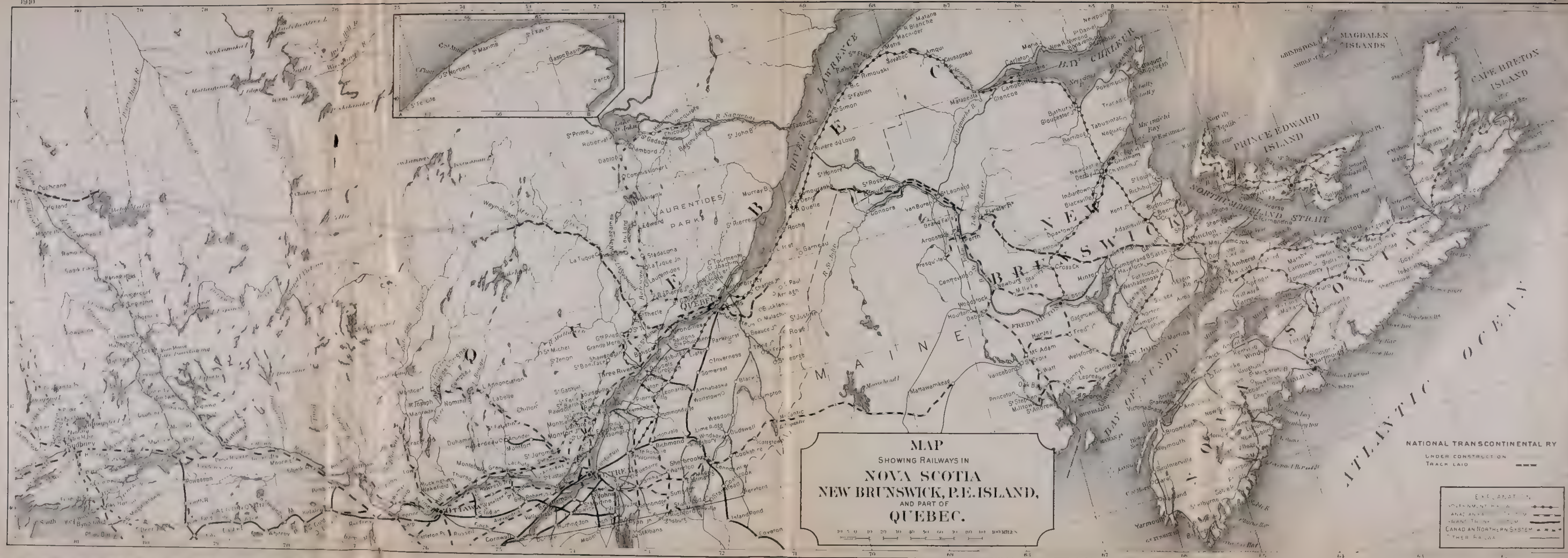
9. Whenever a contract has been duly entered into with a company for the construction of any line of railway hereby subsidized, the Minister of Railways and Canals, at the request of the company, and upon the report of the chief engineer of the Department of Railways and Canals, and his certificate that he has made careful examination of the surveys, plans and profile of the whole line so contracted for, and has duly considered the physical characteristics of the country to be traversed and the means of transport available for construction, naming the reasonable and probable cost of such construction, may, with the authorization of the Governor in Council, enter into a supplementary agreement, fixing definitely the maximum amount of the subsidy to be paid, based upon the said certificate of the chief engineer, and providing that the company shall be entitled to be paid, as the minimum, the ordinary subsidy of \$3,200 per mile, together with sixty per cent of the difference between the amount so fixed and the said \$3,200 per mile, if any; and the balance, forty per cent, shall be paid only on completion of the whole work subsidized, and in so far as the actual cost, as finally determined by the Governor in Council upon the recommendation of the Minister of Railways and Canals, and upon the report and certificate of the said chief engineer, entitles the company thereto: Provided always—

(a) that the estimated cost, as certified, is not less on the average than \$18,000 per mile for the whole mileage subsidized;

(b) that no payment shall be made except upon a certificate of the chief engineer that the work done is up to the standard specified in the company's contract;

(c) that in no case shall the subsidy exceed the sum of \$6,400 per mile.





MAP
SHOWING RAILWAYS
IN THE NORTHERN PARTS OF
BRITISH COLUMBIA
AND
ALBERTA
Scale of Miles
0 10 20 30 40 50 60 70 80 90 100

EXPLANATION

| | |
|-----------------------------|-------|
| CANADIAN PACIFIC SYSTEM | --- |
| CANADIAN NORTHERN SYSTEM | - - - |
| GRAND TRUNK PACIFIC SYSTEM | --- |
| OTHER RAILWAYS | --- |
| G T P Ry Under construction | --- |





EXPLANATION
CANADIAN PACIFIC SYSTEM ———
CANADIAN NORTHERN SYSTEM - - - - -
GRAND TRUNK PACIFIC ———
OTHER RAILWAY ———

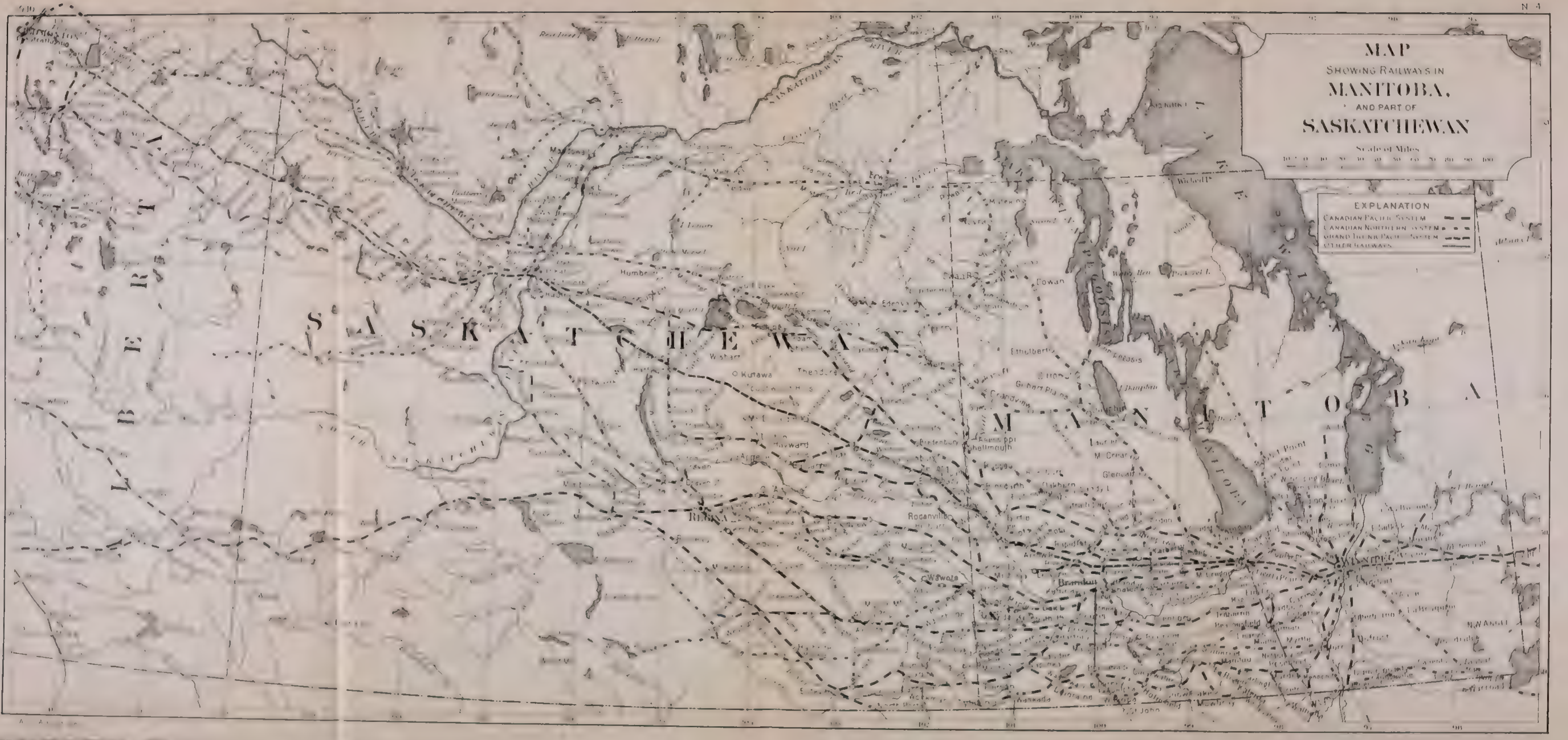
MAP
SHOWING RAILWAYS
IN THE SOUTHERN PARTS OF
BRITISH COLUMBIA
AND
ALBERTA.
Scale of Miles
0 10 20 30 40 50 60 70 80 90 100

MAP
SHOWING RAILWAYS IN
MANITOBA,
AND PART OF
SASKATCHEWAN

Scale of Miles
0 10 20 30 40 50 60 70 80 90 100

EXPLANATION

| | |
|----------------------------|-------|
| CANADIAN PACIFIC SYSTEM | --- |
| CANADIAN NORTHERN SYSTEM | - - - |
| GRAND TRUNK PACIFIC SYSTEM | --- |
| OTHER RAILWAYS | --- |



MAP
SOUTH BRITAIN
IN PARTS OF
ONTARIO AND QUEBEC



DOMINION OF CANADA MAP SHOWING CANADIAN SHIP CANAL

ALSO
ST. MARY'S FALLS CANAL MICH, U.S.A

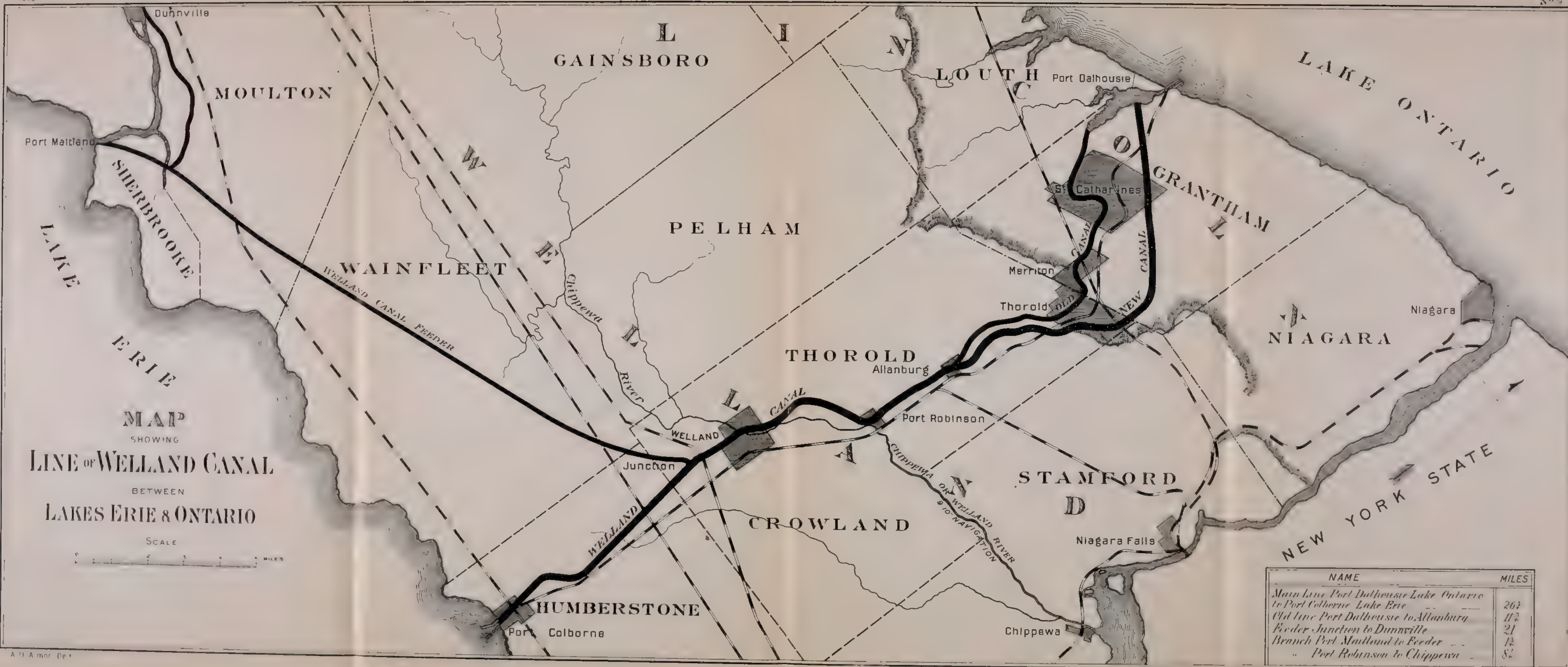
SCALE OF FEET
0 500 1000 2000 2500

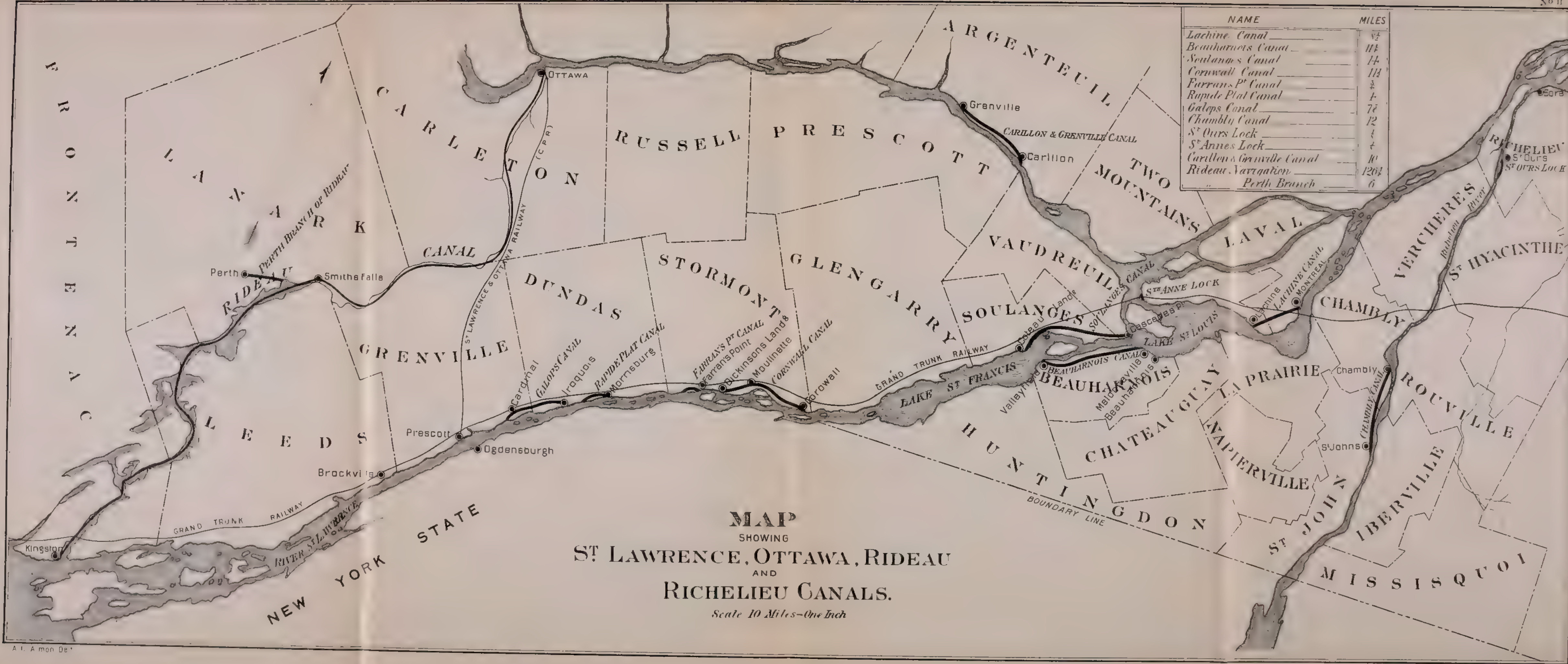
CANADIAN SHIP CANAL

| | |
|---|-------------------|
| Length of canal between the extreme locks | 1.5 mi. |
| Number of locks | 4 |
| Dimensions of locks | 400 ft. by 60 ft. |
| Depth of water on sills (at lowest known water level) | 7 ft. 3 in. |
| Total rise or fall | 11 ft. |
| Breadth of canal at bottom | 40 ft. |
| Breadth at surface of water | 15 ft. |

To Lake Superior







NATIONAL TRANSCONTINENTAL RY.

UNDER CONSTRUCTION
TRACK LAID

EXPLANATION

CANADIAN PACIFIC SYSTEM
CANADIAN NORTHERN SYSTEM
GRAND TRUNK PACIFIC
OTHER RAILWAYS

MAP

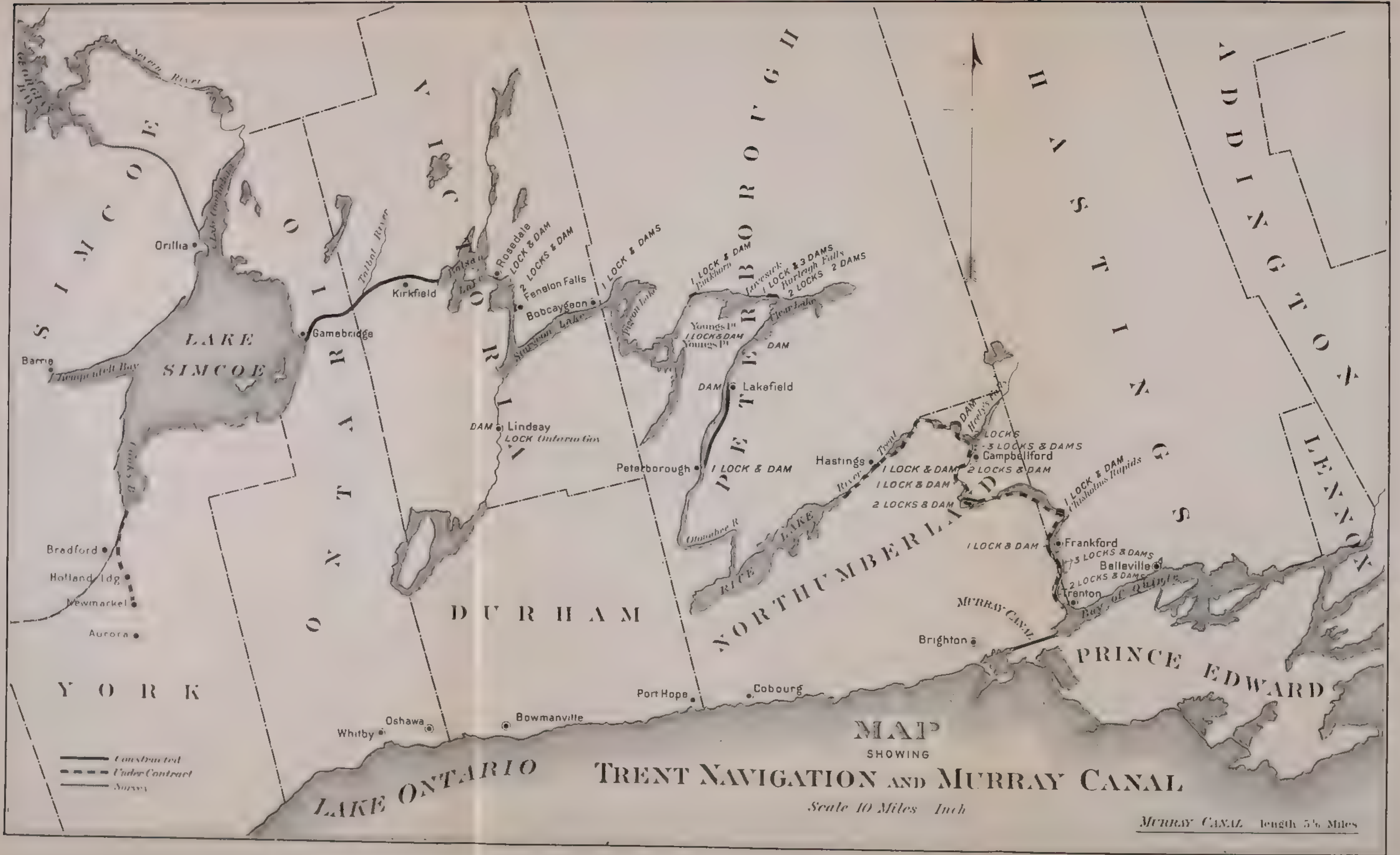
SHOWING RAILWAYS
IN PARTS OF

ONTARIO AND MANITOBA

Scale of Miles

0 10 20 30 40 50 60 70 80 90 100





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ANNUAL REPORT

OF THE

Railways and Canals for 1910

Company Deputy Minister's Report

parts of British Columbia and Alberta.

parts of British Columbia and Alberta.

and part of Saskatchewan.

Ontario and Manitoba.

Ontario and Quebec.

New Brunswick, Prince Edward Island and parts of Quebec.

and also St. Mary's Falls Canal, Mich., U.S.A.

between Lake Erie and Ontario.

Murray Canal.

St. Lawrence, Rideau and Richelieu Canals.

328,71
C121,2
(1911, v.12. maps)

328,71, C121
C121, v.12, maps

ANNUAL REPORT

OF THE

Department of Railways and Canals for 1910

Maps to accompany Deputy Minister's Report

1. General map of the Dominion.
2. Map showing Railways in the northern parts of British Columbia and Alberta.
3. Map showing Railways in the southern parts of British Columbia and Alberta.
4. Map showing Railways in Manitoba and part of Saskatchewan.
5. Map showing Railways in parts of Ontario and Manitoba.
6. Map showing Railways in parts of Ontario and Quebec.
7. Map showing Railways in Nova Scotia, New Brunswick, Prince Edward Island and parts of Quebec.
8. Map showing Canadian Ship Canal and also St. Mary's Falls Canal, Mich., U.S.A.
9. Map showing Line of Welland Canal between Lake Erie and Ontario.
10. Map showing Trent Navigation and Murray Canal.
11. Map showing the St. Lawrence, Ottawa, Rideau and Richelieu Canals.

32

